10 023 782

```
                  ||||||: |:|| |:|:
Db          1 AGAGGAUUCUGGACUCU 17
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RESULT 4368
AAX75068
ID AAX75068 standard; RNA; 17 BP.
XX
AC AAX75068;
XX
DT 28-JUL-1999 (first entry)
XX
DE Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #596.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Mus sp.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 173; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 0 A; 0 C; 2 G; 0 T; 15 U; 0 Other;

 Query Match 0.5%; Score 13.8; DB 1; Length 17;
 Best Local Similarity 0.0%; Pred. No. 3.2e+03;
 Matches 0; Conservative 15; Mismatches 2; Indels 0; Gaps 0;

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Qy       2166 TTTTTTTTTTTTTTTT 2182
              :::::: :::::: :::
Db          1 UUUUUUGUUUUUUGUUU 17
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RESULT 4369
AAX75068/c
ID AAX75068 standard; RNA; 17 BP.
XX
AC AAX75068;
XX
DT 28-JUL-1999 (first entry)
XX
DE Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #596.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Mus sp.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 173; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 0 A; 0 C; 2 G; 0 T; 15 U; 0 Other;

 Query Match 0.5%; Score 13.8; DB 1; Length 17;
 Best Local Similarity 88.2%; Pred. No. 3.2e+03;
 Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||| |||||| ||||||
Db         17 AAACAAAAAACAAAAAA 1
```

RESULT 4370
AAX69794
ID AAX69794 standard; RNA; 17 BP.
XX
AC AAX69794;
XX
DT 28-JUL-1999 (first entry)
XX
DE Human flt1 VEGF receptor hammerhead ribozyme substrate #1089.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Homo sapiens.
XX

```
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 79; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 1 A; 3 C; 0 G; 0 T; 13 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   11.8%;  Pred. No. 3.2e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2159 TTTCTCCTTTTTTTTTT 2175
              : :|: |::::::::::
Db          1 UCUCUACUUUUUUUUUU 17


RESULT 4371
AAX69807/c
ID   AAX69807 standard; RNA; 17 BP.
XX
AC   AAX69807;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1102.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 80; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 3 A; 3 C; 0 G; 0 T; 11 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2780 GAATTGAAAAAAAAAAA 2796
              || ||| ||||||||||
Db         17 GATTTGGAAAAAAAAAA 1


RESULT 4372
AAX75069
ID   AAX75069 standard; RNA; 17 BP.
XX
AC   AAX75069;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #597.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 173; 218pp; English.
XX
```

```
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 0 A; 0 C; 2 G; 0 T; 15 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   0.0%;  Pred. No. 3.2e+03;
  Matches    0;  Conservative   15;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTT 2182
              ::::: :::::: ::::
Db          1 UUUUUGUUUUUUGUUUU 17


RESULT 4373
AAX75069/c
ID   AAX75069 standard; RNA; 17 BP.
XX
AC   AAX75069;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #597.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 173; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 0 A; 0 C; 2 G; 0 T; 15 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              |||| |||||| |||||
Db         17 AAAACAAAAAACAAAAA 1


RESULT 4374
AAX69806/c
ID   AAX69806 standard; RNA; 17 BP.
XX
AC   AAX69806;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1101.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 80; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 3 A; 2 C; 0 G; 0 T; 12 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAA 2797
              | ||| ||||||||||||
Db         17 ATTTGGAAAAAAAAAAA 1
```

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RESULT 4375
AAX73109
ID   AAX73109 standard; RNA; 17 BP.
XX
AC   AAX73109;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flk-1 VEGF receptor hammerhead ribozyme substrate #542.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 140; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 4 A; 3 C; 5 G; 0 T; 5 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   64.7%;  Pred. No. 3.2e+03;
  Matches   11;  Conservative    4;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2553 AGAGGATGCTGGGCTCT 2569
              |||||| |:|| |:|:
Db          1 AGAGGAUUCUGGACUCU 17


RESULT 4376
AAX71548
ID   AAX71548 standard; RNA; 17 BP.
XX
AC   AAX71548;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human KDR VEGF receptor hammerhead ribozyme substrate #560.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 114; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 5 A; 3 C; 5 G; 0 T; 4 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   70.6%;  Pred. No. 3.2e+03;
  Matches   12;  Conservative    3;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2552 AAGAGGATGCTGGGCTC 2568
              |||||| |:|| |:|
Db          1 AAGAGGAUUCUGGACUC 17


RESULT 4377
AAX73108
ID   AAX73108 standard; RNA; 17 BP.
XX
AC   AAX73108;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flk-1 VEGF receptor hammerhead ribozyme substrate #541.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
```

PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 140; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 5 A; 3 C; 5 G; 0 T; 4 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 70.6%; Pred. No. 3.2e+03;
Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 2552 AAGAGGATGCTGGGCTC 2568
||||||| :|:|| |:|
Db 1 AAGAGGAUUCUGGACUC 17

RESULT 4378
AAX36644/c
ID AAX36644 standard; DNA; 17 BP.
XX
AC AAX36644;
XX
DT 13-JUL-1999 (first entry)
XX
DE Antisense oligomer SEQ ID NO. 41.
XX
KW Antisense oligonucleotide; gene expression inhibitor; diagnosis;
KW oligonucleotide-based therapy; ss.
XX
OS Synthetic.
XX
PN US5830653-A.
XX
PD 03-NOV-1998.
XX
PF 07-JUN-1995; 95US-00473481.
XX
PR 26-NOV-1991; 91US-00799824.
PR 25-AUG-1992; 92US-00935444.
PR 23-OCT-1992; 92US-00965941.
PR 25-NOV-1992; 92US-00976103.
XX
PA (GILE-) GILEAD SCI INC.
XX
PI Froehler B, Gutierrez AJ, Jones RJ, Matteucci M, Pudlo J;
PI Wagner R;
XX
DR WPI; 1998-609233/51.
XX
PT Screening of anti-sense oligo:nucleotide(s) for ability to inhibit gene
PT expression - comprises micro-injecting varying amounts of the anti-sense
PT oligomer into a host cell and measuring expression of the target and
PT control genes.
XX
PS Example 17; Col 51; 104pp; English.
XX
CC This sequence represents an antisense oligonucleotide used to test the
CC method of the invention. The method of the invention is for evaluation of
CC an antisense oligomer for its ability to inhibit gene expression, and
CC comprises: microinjecting varying amounts of the antisense oligomer into
CC a host cell along with a target vector for the expression of a gene
CC containing a target sequence for the antisense oligomer and a control
CC vector for the expression of a control gene that encodes a detectable
CC protein and does not contain the target sequence; and measuring
CC expression of the target gene and the control gene. Increasing inhibition
CC of the target gene expression, but not of the control gene expression, as
CC the amount of antisense oligomer increases indicates the ability of the
CC antisense oligomer to inhibit gene expression. The method is used in
CC oligonucleotide-based therapy and diagnosis. The oligomers have enhanced
CC affinity for complementary target nucleic acid sequences and improved
CC binding affinity for double-stranded and/or single-stranded target
CC sequences
XX
SQ Sequence 17 BP; 12 A; 0 C; 5 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2156 TTTTTTCTCCTTTTTTT 2172
||||| ||||||| |||
Db 17 TTTTTCCTCCTTTCTTT 1

RESULT 4379
AAX09151
ID AAX09151 standard; DNA; 17 BP.
XX
AC AAX09151;
XX
DT 24-MAR-1999 (first entry)
XX
DE Human biallelic polymorphic marker upstream primer #31.
XX
KW Polymorphism; biallelic; human; forensic; paternity testing; disease;
KW detection; phenotypic typing; characteristic; infection; hereditary;
KW autoimmune disease; cancer; inflammation; drug; therapy; medicament;
KW treatment; marker; primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9820165-A2.
XX
PD 14-MAY-1998.
XX
PF 05-NOV-1997; 97WO-US020313.
XX
PR 06-NOV-1996; 96US-0030455P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
XX
PI Lander ES, Wang D, Hudson T;
XX
DR WPI; 1998-286974/25.
XX
PT New isolated nucleic acid segments from the human genome - used for
PT determining polymorphic forms for use in e.g. forensics, paternity
PT testing or phenotypic typing for disease.
XX
PS Claim 15; Page 49; 310pp; English.
XX

CC AAX09121-X10268 are allele-specific oligonucleotide primers used in the
CC isolation of various biallelic polymorphic markers found in the human
CC genome (represented in AAX10269-X12937). These primers can be used in a
CC method for determining polymorphic forms in an individual for use in e.g.
CC forensics, paternity testing or for phenotypic typing for diseases such
CC as agammaglobulinemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular
CC dystrophy, Wiskott-Aldrich syndrome, Fabry's disease, familial
CC hypercholesterolemia, polycystic kidney disease, hereditary
CC spherocytosis, von Willebrand's disease, tuberous sclerosis, hereditary
CC haemorrhagic telangiectasia, familial colonic polyposis, Ehlers-Danlos
CC syndrome, osteogenesis imperfecta, acute intermittent porphyria,
CC autoimmune diseases, inflammation, cancer, diseases of the nervous
CC system, infection by pathogenic microorganisms, and characteristics such
CC as longevity, appearance (e.g. baldness, obesity), strength, speed,
CC endurance, fertility, and susceptibility or receptivity to particular
CC drugs or therapeutic treatments. The isolated polymorphic nucleic acid
CC segments can also be used to produce medicaments for the treatment or
CC prophylaxis of such diseases
XX
SQ Sequence 17 BP; 5 A; 5 C; 7 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 455 GGCAGCCAGCAGCAGGC 471
||||||||| ||||| |
Db 1 GGCAGCCAGGAGCAGAC 17

RESULT 4380
AAV97882
ID AAV97882 standard; RNA; 17 BP.
XX
AC AAV97882;
XX
DT 17-MAR-1999 (first entry)
XX
DE Human EGF-R target sequence nucleotide position 4903.
XX
KW Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW cancer; genetic drift; detection; mutation; ss.
XX
OS Homo sapiens.
XX
PN WO9833893-A2.
XX
PD 06-AUG-1998.
XX
PF 14-JAN-1998; 98WO-US000730.
XX
PR 31-JAN-1997; 97US-0036476P.
PR 04-DEC-1997; 97US-00985162.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (UYAS-) UNIV ASTON.
XX
PI Akhtar S, Fell P, Mcswiggen JA;
XX
DR WPI; 1998-437449/37.
XX
PT Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT growth factor receptor, useful for inhibiting cell proliferation and for
PT treating cancers.
XX
PS Claim 5; Page 81; 109pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules (NAMs)
CC which specifically cleave RNA derived from an epidermal growth factor
CC receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC represent specifically claimed target sequence from human EGF-R. AAV98044
CC to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and
CC hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC expression levels e.g. to inhibit cell proliferation in the prevention or
CC treatment of cancers. The NAMs can also be used as diagnostic tools to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of EGF-R RNA in a cell
XX
SQ Sequence 17 BP; 2 A; 3 C; 2 G; 0 T; 10 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 29.4%; Pred. No. 3.2e+03;
Matches 5; Conservative 10; Mismatches 2; Indels 0; Gaps 0;

Qy 2153 GATTTTTTTCTCCTTTT 2169
|| : :::|:||:::
Db 1 GAUAGUUUUCUCCUUUU 17

RESULT 4381
AAV96447/c
ID AAV96447 standard; RNA; 17 BP.
XX
AC AAV96447;
XX
DT 01-MAR-1999 (first entry)
XX
DE Potato citrate synthase target sequence position 348.
XX
KW Solanidine; glucosyltransferase; potato; citrate synthase; target;
KW hammerhead ribozyme; hairpin ribozyme; alkaloid biosynthesis;
KW flower formation; cleavage; solanaceous plant; ss.
XX
OS Solanum tuberosum.
XX
PN WO9832843-A2.
XX
PD 30-JUL-1998.
XX
PF 14-JAN-1998; 98WO-US000738.
XX
PR 28-JAN-1997; 97US-0036545P.
PR 28-JAN-1997; 97US-0036599P.
PR 24-NOV-1997; 97US-00979416.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Zwick MG, Mcswiggen JA;
XX
DR WPI; 1998-427939/36.
XX
PT New enzymatic nucleic acid(s) - useful for, e.g. reducing alkaloid
PT biosynthesis or regulating flowering.
XX
PS Claim 53; Page 53; 79pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with RNA
CC -cleaving activity (e.g. ribozymes) which are capable of modulating the
CC expression of plant genes: (i) involved in biosynthesis of alkaloids; or
CC (ii) involved in flower formation. AAV95982 to AAV96334, and AAV96335 to
CC AAV96354 represent potato solanidine glucosyltransferase hammerhead and
CC hairpin ribozymes, respectively. AAV95629 to AAV95981, and AAV96355 to
CC AAV96734 represent potato solanidine glucosyltransferase target
CC sequences. AAV96773 to AAV97170, and AAV97171 to AAV97195 represent
CC potato citrate synthase hammerhead and hairpin ribozymes, respectively.
CC AAV96735 to AAV96772, and AAV97196 to AAV97220 represent potato citrate
CC synthase target sequences. Ribozymes of the present invention can be used
CC to inhibit the synthesis of toxic alkaloids in solanaceous plants,
CC particularly potato but also tomato, pepper, aubergine and ditura or to
CC inhibit flowering in potato, lettuce, spinach, cabbage, brussel sprouts,
CC arugula, kale, collards, chard, beet, turnip, sweet potato and turf
CC grass. Also the ribozymes can be used for RNA manipulation in the same
CC way that restriction endonucleases are for DNA, as well as to examine
CC genetic drift and mutations in plants and to detect specific RNA. The

```
CC   ribozymes can be targeted to specific genes or to consensus sequences
CC   within a family of related genes, and being catalytic need to be present
CC   at only very low concentrations
XX
SQ   Sequence 17 BP; 4 A; 6 C; 2 G; 0 T; 5 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1929 TCAGTGTTAAGGTAATG 1945
                ||||  || |||||||||
Db         17 TCAGGGTCAAGGTAATG 1

RESULT 4382
AAV08636
ID   AAV08636 standard; DNA; 17 BP.
XX
AC   AAV08636;
XX
DT   15-FEB-1999  (first entry)
XX
DE   Primer ANG/22RT for human ACE gene.
XX
KW   PCR primer; human; ACE; angiotensin converting enzyme; angiotensinogen;
KW   cardiovascular status; AGT; AT1; type 1 angiotensin II receptor; stroke;
KW   polymorphic pattern; blood pressure; electrocardiographic profile;
KW   cardiac condition diagnosis; myocardial infarction; atherosclerosis;
KW   hypertension; cardiovascular disease; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9845477-A2.
XX
PD   15-OCT-1998.
XX
PF   01-APR-1998;   98WO-IB000475.
XX
PR   04-APR-1997;   97US-0042930P.
XX
PA   (EURO-) EURONA MEDICAL AB.
XX
PI   Norberg LT,  Andersson MK,  Lindstroem PHR;
XX
DR   WPI; 1998-568361/48.
XX
PT   Assessing cardiovascular status in humans by polymorphic analysis - of
PT   genes for angiotensin converting enzyme, angiotensinogen and angiotensin
PT   II receptor, used to diagnose predisposition to disease and to predict
PT   effect of therapy.
XX
PS   Example 1; Page 30; 71pp; English.
XX
CC   This sequence represents a PCR primer for the human ACE (angiotensin
CC   converting enzyme) gene, and can be used in the method of the invention.
CC   The method is for assessing cardiovascular status in humans by
CC   determining the sequence of at least one polymorphic site in the ACE
CC   (angiotensin converting enzyme), AGT (angiotensinogen) and/or AT1 (type 1
CC   angiotensin II receptor) genes, and comparing the polymorphic pattern
CC   with that in patients with predetermined markers of status. The method is
CC   used to assess blood pressure or electrocardiographic profile, to
CC   diagnose a cardiac condition such as (silent) myocardial infarction (MI),
CC   hypertension, atherosclerosis or stroke. They can also be used to predict
CC   response to treatments with ACE inhibitors, angiotensin II receptor
CC   antagonists, diuretics, alpha- or beta-adrenergic receptor antagonists,
CC   etc. It is also used to identify susceptibility to cardiovascular
CC   disease. Libraries of nucleic acids containing polymorphic positions in
CC   the 3 genes, and libraries of targets corresponding to the peptides from
CC   the genes are used to screen for cardiovascular agents. The nucleic acids
CC   contained in the library can be is used as source of probes
XX
SQ   Sequence 17 BP; 6 A; 5 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        483 GCCAGAGCCAGGAGGGA 499
              ||||||||||| || ||
Db          1 GCCAGAGCCAGCAGAGA 17


RESULT 4383
AAX23090/c
ID   AAX23090 standard; DNA; 17 BP.
XX
AC   AAX23090;
XX
DT   11-JUN-1999  (first entry)
XX
DE   Primer #13.
XX
KW   Minimal residual disease; cancer; treatment; malignancy-specific;
KW   fluorogenic probe; quantitative detection; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9914366-A2.
XX
PD   25-MAR-1999.
XX
PF   18-SEP-1998;   98WO-NL000542.
XX
PR   18-SEP-1997;   97EP-00202858.
XX
PA   (UYRO-) UNIV ROTTERDAM ERASMUS.
XX
PI   Van Dongen JJM,  Pongers-Willemse MJ;
XX
DR   WPI; 1999-229551/19.
XX
PT   Determining residual disease comprises using a fluorogenic probe specific
PT   to a malignancy-specific nucleic acid sequence.
XX
PS   Disclosure; Page 15; 49pp; English.
XX
CC   This invention describes a method for determining minimal residual
CC   disease during and after cancer treatment. The method involves amplifying
CC   nucleic acid molecules using at least one primer reactive with a common
CC   gene segment, and identifying malignancy-specific nucleic acid sequences
CC   by hybridizing with a fluorogenic probe specific to the malignancy-
CC   specific nucleic acid sequences. The method is not restricted to a set of
CC   patients as in immunological marker analysis, and the new technique
CC   allows quantitative detection of frequencies of malignant cells, unlike
CC   current PCR methods, which are also time-consuming, inaccurate and
CC   difficult to standardize. The new method takes 3 hours, compared to 5
CC   days for conventional techniques, and has equal sensitivity. This
CC   sequence represents a primer used in the method of the invention
XX
SQ   Sequence 17 BP; 4 A; 2 C; 9 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        328 TCAGCCGCCACCCTACT 344
              |||||| ||||||| ||
Db         17 TCAGCCTCCACCCTGCT 1


RESULT 4384
AAA18461
ID   AAA18461 standard; RNA; 17 BP.
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XX
AC   AAA18461;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Human TIE-2 substrate sequence SEQ ID NO:1687.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US006507.
XX
PR   27-MAR-1998;   98US-0079678P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  Mcswiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or stability
PT   of an mRNA encoding an angiogenic factors.
XX
PS   Claim 56; Page 96; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with RNA
CC   cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ   Sequence 17 BP; 3 A; 2 C; 4 G; 0 T; 8 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   52.9%;  Pred. No. 3.2e+03;
  Matches    9;  Conservative    6;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1117 TGCCTATGTCTGTGAAG 1133
              :|| :|: :|:|:|||| |
Db          1 UGCUUAUUUCUGUGAAG 17
```

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RESULT 4385
AAA22593
ID   AAA22593 standard; RNA; 17 BP.
XX
AC   AAA22593;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5819.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US006507.
XX
PR   27-MAR-1998;   98US-0079678P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  Mcswiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or stability
PT   of an mRNA encoding an angiogenic factors.
XX
PS   Claim 54; Page 230; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with RNA
CC   cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ   Sequence 17 BP; 0 A; 3 C; 0 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   11.8%;  Pred. No. 3.2e+03;
```

```
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTT 2171
              ::::: : :||::::::
Db          1 UUUUUCUUUCCUUUUUU 17


RESULT 4386
AAA20755/c
ID   AAA20755 standard; RNA; 17 BP.
XX
AC   AAA20755;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:3981.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US006507.
XX
PR   27-MAR-1998;   98US-0079678P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  Mcswiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or stability
PT   of an mRNA encoding an angiogenic factors.
XX
PS   Claim 55; Page 165; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with RNA
CC   cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ   Sequence 17 BP; 2 A; 2 C; 3 G; 0 T; 10 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        879 CTAAATACAAAGTGACA 895
              | ||||| |||||||||
Db         17 CCAAATAAAAAGTGACA 1


RESULT 4387
AAA19040
ID   AAA19040 standard; RNA; 17 BP.
XX
AC   AAA19040;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Human TIE-2 substrate sequence SEQ ID NO:2266.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US006507.
XX
PR   27-MAR-1998;   98US-0079678P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  Mcswiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or stability
PT   of an mRNA encoding an angiogenic factors.
XX
PS   Claim 56; Page 132; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with RNA
CC   cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
```

CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 7 A; 0 C; 2 G; 0 T; 8 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 41.2%; Pred. No. 3.2e+03;
Matches 7; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

Qy 2353 TTCTGTATTTTAAGAAA 2369
:: : :|::::||||||
Db 1 UUGUAUAUUUUAAGAAA 17

RESULT 4388
AAA21137/c
ID AAA21137 standard; RNA; 17 BP.
XX
AC AAA21137;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:4363.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US006507.
XX
PR 27-MAR-1998; 98US-0079678P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, Mcswiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or stability
PT of an mRNA encoding an angiogenic factors.
XX
PS Claim 55; Page 189; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with RNA
CC cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 5 A; 4 C; 3 G; 0 T; 5 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2208 AAATGGGAGACTCTTTG 2224
||| ||||||||||||
Db 17 AAACTGGAGACTCTTTG 1

RESULT 4389
AAA22975/c
ID AAA22975 standard; RNA; 17 BP.
XX
AC AAA22975;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin subunit beta 3 substrate sequence SEQ ID NO:6201.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US006507.
XX
PR 27-MAR-1998; 98US-0079678P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, Mcswiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or stability
PT of an mRNA encoding an angiogenic factors.
XX
PS Claim 54; Page 254; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with RNA
CC cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme

CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 14 A; 0 C; 0 G; 0 T; 3 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2171 TTTTTTTTTTTTTTTA 2187
||||||||| ||||||
Db 17 TTTTTTTTTAATTTTA 1

RESULT 4390
AAA22599
ID AAA22599 standard; RNA; 17 BP.
XX
AC AAA22599;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin subunit beta 3 substrate sequence SEQ ID NO:5825.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US006507.
XX
PR 27-MAR-1998; 98US-0079678P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, Mcswiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or stability
PT of an mRNA encoding an angiogenic factors.
XX
PS Claim 54; Page 230; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with RNA
CC cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 0 A; 4 C; 0 G; 0 T; 13 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 11.8%; Pred. No. 3.2e+03;
Matches 2; Conservative 13; Mismatches 2; Indels 0; Gaps 0;

Qy 2163 TCCTTTTTTTTTTTTTT 2179
:||:::::: ::: :::
Db 1 UCCUUUUUUCUUUCUUU 17

RESULT 4391
AAA20514
ID AAA20514 standard; RNA; 17 BP.
XX
AC AAA20514;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:3740.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US006507.
XX
PR 27-MAR-1998; 98US-0079678P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, Mcswiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or stability
PT of an mRNA encoding an angiogenic factors.
XX
PS Claim 55; Page 150; 305pp; English.
XX

CC The present invention describes enzymatic nucleic acid molecules with RNA
CC cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 2 A; 4 C; 3 G; 0 T; 8 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 47.1%; Pred. No. 3.2e+03;
Matches 8; Conservative 7; Mismatches 2; Indels 0; Gaps 0;

Qy 1095 CTGTTCATTTGGCTAGG 1111
|: ::||:::|||:| |
Db 1 CUCUUCAUUUGGCUAUG 17

RESULT 4392
AAA38264
ID AAA38264 standard; DNA; 17 BP.
XX
AC AAA38264;
XX
DT 21-AUG-2000 (first entry)
XX
DE Human angiotensinogen (AGT) exon 2 PCR primer, SEQ ID NO:64.
XX
KW Angiotensinogen gene; AGT; coding region; polymorphism;
KW polymorphic marker; cardiovascular disease; myocardial infarction;
KW unstable angina; hypertension; atherosclerosis; stroke; prognosis;
KW drug screening; treatment outcome; human; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200022166-A2.
XX
PD 20-APR-2000.
XX
PF 13-OCT-1999; 99WO-IB001678.
XX
PR 14-OCT-1998; 98US-0104286P.
PR 14-OCT-1998; 98US-0104302P.
XX
PA (EURO-) EURONA MEDICAL AB.
XX
PI Norberg LT, Andersson MK, Lindstrom PHR, Jonsson L;
XX
DR WPI; 2000-318010/27.
XX
PT Assessing cardiovascular status in humans involves comparing test
PT polymorphic pattern comprising polymorphic positions within genes
PT encoding specific proteins, with reference polymorphic pattern.
XX
PS Example 1; Page 51; 126pp; English.
XX
CC The invention relates to a novel method of assessing the cardiovascular
CC status in an individual and to newly identified polymorphisms in the
CC genes encoding angiotensin-converting enzyme (ACE), angiotensin II
CC receptor type 1 (AT1) and type 2 (AT2), angiotensinogen (AGT), renin,
CC aldosterone synthase, endothelin receptor type A and beta-adrenergic
CC receptors 1 and 2. The method comprises determining the sequence at one
CC or more polymorphic positions within these genes, and comparing the
CC pattern of polymorphisms from the individual with a reference polymorphic
CC pattern obtained from a population of individuals exhibiting a
CC predetermined cardiovascular disease status. The polymorphic markers are
CC useful for determining the predisposition of an individual to
CC cardiovascular disorders such as myocardial infarction, unstable angina,
CC hypertension, atherosclerosis and stroke. They are also useful for
CC predicting the likely cardiovascular status of a patient given a
CC treatment regimen comprising administration of cardiovascular drugs
CC (e.g., ACE inhibitors, beta-adrenergic receptor antagonists (beta-
CC blockers) or calcium channel blockers). One or more polymorphic markers
CC provides a basis for predicting the outcome of a treatment regimen.
CC Fragments of the genes comprising a polymorphic site may be used as
CC primers and probes for detecting genetic polymorphisms or in molecular
CC library arrays for high throughput screening. The genes, and the proteins
CC they encode are useful in the screening of potential cardiovascular
CC drugs. Determination of an individual's polymorphic pattern reduces or
CC eliminates trial and error in selecting a treatment for a particular
CC individual cardiovascular patient. It also provides the ability to
CC eliminate patients from clinical trials who are predicted to be non-
CC responsive, or at a risk for an adverse response, to a particular
CC treatment regimen. Adverse results in an early trial can be evaluated to
CC identify polymorphic patterns so that the adverse results can be
CC correlated with a sub-population of the test population, permitting
CC exclusion of such sub-populations from the treatment group. Beneficial
CC drugs can be approved for use in the appropriate population, thereby
CC decreasing the number of patients required for a clinical trial, which in
CC turn decreases the duration and cost of such trials. Sequences AAA38252-
CC A38267 represent PCR primers used in an exemplification of the invention
CC to amplify short fragments of the human angiotensinogen gene coding
CC region (AAA38324-A38327) for sequence determination
XX
SQ Sequence 17 BP; 6 A; 5 C; 6 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 483 GCCAGAGCCAGGAGGGA 499
||||||||||| || ||
Db 1 GCCAGAGCCAGCAGAGA 17

RESULT 4393
AAA25444
ID AAA25444 standard; DNA; 17 BP.
XX
AC AAA25444;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1942.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US008547.

```
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1764 ATTAAGCTTTTTTTTTT 1780
              ||| || ||||||||||
Db          1 ATTTAGTTTTTTTTTT 17


RESULT 4394
AAA25445
ID   AAA25445 standard; DNA; 17 BP.
XX
AC   AAA25445;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1943.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1765 TTAAGCTTTTTTTTTT 1781
              || || ||||||||||
Db          1 TTTAGTTTTTTTTTT 17


RESULT 4395
AAA25445/c
ID   AAA25445 standard; DNA; 17 BP.
XX
AC   AAA25445;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1943.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
```

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PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              |||||||||||||  |||
Db         17 AAAAAAAAAAAACTAAA 1


RESULT 4396
AAA25455
ID   AAA25455 standard; DNA; 17 BP.
XX
AC   AAA25455;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1953.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2171 TTTTTTTTTTTTTTTA 2187
              |||||||||||| | ||
Db          1 TTTTTTTTTTTTGTATA 17


RESULT 4397
AAA25180
ID   AAA25180 standard; DNA; 17 BP.
XX
AC   AAA25180;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1678.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
```

PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target sequences,
PT used to treat cancer.
XX
PS Claim 77; Page 71; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
CC in vivo or by transforming cells ex vivo and implanting treated cells, or
CC for other conditions associated with levels of oestrogen receptor.
CC Because of the high selectivity for targeted RNA, (A) can also be used to
CC correlate inhibition of gene expression with alterations in phenotype,
CC particularly for identification of therapeutic targets, and as research
CC reagents (for RNA, in the same way that restriction endonucleases are
CC used with DNA). The combination of modifications in (A) improves
CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
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CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTT 2182
||||| ||||| |||||
Db 1 TTTTTGTTTTTATTTTT 17

RESULT 4398
AAA25180/c
ID AAA25180 standard; DNA; 17 BP.
XX
AC AAA25180;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1678.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US008547.
XX
PR 20-APR-1998; 98US-0082404P.
PR 23-JUN-1998; 98US-00103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, Mcswiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
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PT New nucleic acids that interact, and optionally cleave, target sequences,
PT used to treat cancer.
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XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
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CC Because of the high selectivity for targeted RNA, (A) can also be used to
CC correlate inhibition of gene expression with alterations in phenotype,
CC particularly for identification of therapeutic targets, and as research
CC reagents (for RNA, in the same way that restriction endonucleases are
CC used with DNA). The combination of modifications in (A) improves
CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
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CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2802
||||| ||||| |||||
Db 17 AAAAATAAAAACAAAAA 1

RESULT 4399
AAA25446
ID AAA25446 standard; DNA; 17 BP.
XX
AC AAA25446;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1944.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US008547.
XX
PR 20-APR-1998; 98US-0082404P.
PR 23-JUN-1998; 98US-00103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, Mcswiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX

PT New nucleic acids that interact, and optionally cleave, target sequences,
PT used to treat cancer.
XX
PS Claim 77; Page 79; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
CC in vivo or by transforming cells ex vivo and implanting treated cells, or
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CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
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CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTT 2182
|| ||||||||||||||
Db 1 TTAGTTTTTTTTTTTTT 17

RESULT 4400
AAA25446/c
ID AAA25446 standard; DNA; 17 BP.
XX
AC AAA25446;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1944.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US008547.
XX
PR 20-APR-1998; 98US-0082404P.
PR 23-JUN-1998; 98US-00103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, Mcswiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
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PT used to treat cancer.
XX
PS Claim 77; Page 79; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
CC in vivo or by transforming cells ex vivo and implanting treated cells, or
CC for other conditions associated with levels of oestrogen receptor.
CC Because of the high selectivity for targeted RNA, (A) can also be used to
CC correlate inhibition of gene expression with alterations in phenotype,
CC particularly for identification of therapeutic targets, and as research
CC reagents (for RNA, in the same way that restriction endonucleases are
CC used with DNA). The combination of modifications in (A) improves
CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC AAA24748 to AAA25992 represent their corresponding target sequences.
CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2802
|||||||||||||| ||
Db 17 AAAAAAAAAAAAACTAA 1

RESULT 4401
AAC61264
ID AAC61264 standard; DNA; 17 BP.
XX
AC AAC61264;
XX
DT 30-JAN-2001 (first entry)
XX
DE Human ACE, AGT and AT1 genes polymorphisms PCR primer SEQ ID NO: 64.
XX
KW Human; genetic polymorphism; disease diagnosis; treatment; cancer;
KW cardiovascular system; nervous system; glaucoma; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200056922-A2.
XX
PD 28-SEP-2000.
XX
PF 23-MAR-2000; 2000WO-GB001102.
XX
PR 23-MAR-1999; 99US-0126046P.
PR 23-MAR-1999; 99WO-IB000497.
PR 24-MAR-1999; 99US-0126243P.
PR 23-DEC-1999; 99US-00471890.
XX
PA (GEMI-) GEMINI GENOMICS AB.
XX
PI Lindstrom PHR, Norberg LT, Jonsson L, Olaisson E, Sanders R;
XX
DR WPI; 2000-638268/61.
XX
PT Assessing disease status in individual by determining sequence(s) at one
PT or more polymorphic positions within the human genes encoding the
PT protein(s) involved in physiological pathway associated with treatment
PT regime.
XX
PS Example 1; Page 58; 141pp; English.

```
XX
CC   The present invention is related to methods for determining the
CC   polymorphic pattern of an individual and using the results to determine
CC   their risk of a number of diseases, including cancer, cardiovascular
CC   diseases, glaucoma and nervous system disorders such as depression and
CC   neurodegenerative diseases. In addition, the methods can be used to
CC   determine the effects of different types of treatment for individuals,
CC   and thus enables appropriate therapies to be prescribed. THe PCR primers
CC   shown in sequences AAC61201-C61371 were all used to demonstrate the
CC   methods of the invention
XX
SQ   Sequence 17 BP; 6 A; 5 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        483 GCCAGAGCCAGGAGGGA 499
              ||||||||||| || ||
Db          1 GCCAGAGCCAGCAGAGA 17


RESULT 4402
AAF03220
ID   AAF03220 standard; DNA; 17 BP.
XX
AC   AAF03220;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1515.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 37; Page 90; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 3 A; 1 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1763 CATTAAGCTTTTTTTTT 1779
                ||||||  |||||||||
Db          1 CATTAATTTTTTTTTTT 17


RESULT 4403
AAF06382
ID   AAF06382 standard; DNA; 17 BP.
XX
AC   AAF06382;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3179.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 42; Page 128; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 0 T; 13 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   23.5%;  Pred. No. 3.2e+03;
  Matches    4;  Conservative   11;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2179 TTTTTTTTAACTTTGAA 2195
              ::::::::|| :::| |
Db          1 UUUUUUUUAAUUUUGUA 17


RESULT 4404
AAF06326/c
ID   AAF06326 standard; DNA; 17 BP.
XX
AC   AAF06326;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3123.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
```

XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 42; Page 127; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 6 A; 1 C; 2 G; 0 T; 8 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1971 TTACCTTGAAAAAAAGA 1987
||||||||||| |||| |
Db 17 TTACCTTGAATAAAATA 1

RESULT 4405
AAF02388/c
ID AAF02388 standard; DNA; 17 BP.
XX
AC AAF02388;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #683.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 37; Page 71; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 14 A; 0 C; 2 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2165 CTTTTTTTTTTTTTTT 2181
||||||||| |||| ||
Db 17 CTTTTTTTTATTTTCTT 1

RESULT 4406
AAF05982/c
ID AAF05982 standard; DNA; 17 BP.
XX
AC AAF05982;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #2779.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 42; Page 120; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 5 A; 6 C; 0 G; 0 T; 6 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2680 GTGGGTGAAATGGACAT 2696
              ||| |||||||||| ||
Db         17 GTGTGTGAAATGGAAAT 1
```

RESULT 4407
ABK01191/c
ID ABK01191 standard; RNA; 17 BP.
XX
AC ABK01191;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #461.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 85; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 6 A; 5 C; 2 G; 0 T; 4 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2479 CTTTTAATGGTGATGGG 2495
              ||| |||||||||||  |
Db         17 CTTCTAATGGTGATGAG 1
```

RESULT 4408
ABK00928/c
ID ABK00928 standard; RNA; 17 BP.
XX
AC ABK00928;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #198.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense

PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 81; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 12 C; 3 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 558 TGGAGGCGGGCGCGGTG 574
|||||| |||||||| |
Db 17 TGGAGGGGGGCGCGGCG 1

RESULT 4409
ABK00932/c
ID ABK00932 standard; RNA; 17 BP.
XX
AC ABK00932;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #202.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.

OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBC-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 81; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 554 GGGCTGGAGGCGGGCGC 570
||| |||||| ||||||
Db 17 GGGGTGGAGGGGGGCGC 1

RESULT 4410
ABK00933/c

ID ABK00933 standard; RNA; 17 BP.
XX
AC ABK00933;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #203.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 81; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 553 CGGGCTGGAGGCGGGCG 569
|||| |||||| |||||
Db 17 CGGGGTGGAGGGGGGCG 1

RESULT 4411
ABK00930/c
ID ABK00930 standard; RNA; 17 BP.
XX
AC ABK00930;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #200.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 81; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates

CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 556 GCTGGAGGCGGGCGCGG 572
|| ||||||| ||||||||
Db 17 GGTGGAGGGGGGCGCGG 1

RESULT 4412
ABK00237/c
ID ABK00237 standard; RNA; 17 BP.
XX
AC ABK00237;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Hammerhead Ribozyme #237.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 69; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a hammerhead ribozyme of the invention
XX
SQ Sequence 17 BP; 14 A; 0 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2158 TTTTCTCCTTTTTTTTT 2174
|||||| || |||||||
Db 17 TTTTCTTCTATTTTTTT 1

RESULT 4413
ABK02172/c
ID ABK02172 standard; RNA; 17 BP.
XX
AC ABK02172;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO DNAzyme #84.

XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 114; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a DNAzyme molecule of the invention
XX
SQ Sequence 17 BP; 14 A; 0 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2160 TTCTCCTTTTTTTTTTT 2176
|||| || |||||||||
Db 17 TTCTTCTATTTTTTTTT 1

RESULT 4414
ABK03238/c
ID ABK03238 standard; RNA; 17 BP.
XX
AC ABK03238;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human CD20 Inozyme #189.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 30; Page 149; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA

CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 7 A; 4 C; 3 G; 0 T; 3 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy       2568 CTGTTCTTGGCTTGGAA 2584
              || ||||||| ||||||
Db         17 CTCTTCTTGGATTGGAA 1
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RESULT 4415
ABK00931/c
ID ABK00931 standard; RNA; 17 BP.
XX
AC ABK00931;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #201.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 81; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        555 GGCTGGAGGCGGGCGCG 571
              || |||||| |||||||
Db         17 GGGTGGAGGGGGGCGCG 1
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RESULT 4416
ABK01789
ID ABK01789 standard; RNA; 17 BP.
XX
AC ABK01789;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Zinzyme #111.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;

KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 97; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a zinzyme molecule of the invention
XX
SQ Sequence 17 BP; 2 A; 6 C; 9 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 52 CGGCGGGGGCGGCGGCA 68
||||||||||||||||||
Db 1 CGGCGGCGGCGGCAGCA 17

RESULT 4417
ABK00049/c
ID ABK00049 standard; RNA; 17 BP.
XX
AC ABK00049;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Hammerhead Ribozyme #49.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 66; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic

CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a hammerhead ribozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 12 C; 3 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 552 CCGGGCTGGAGGCGGGC 568
||||| |||||| ||||
Db 17 CCGGGGTGGAGGGGGGC 1

RESULT 4418
ABK00904
ID ABK00904 standard; RNA; 17 BP.
XX
AC ABK00904;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Inozyme #174.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 80; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is an inozyme of the invention
XX
SQ Sequence 17 BP; 1 A; 11 C; 3 G; 0 T; 2 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 76.5%; Pred. No. 3.2e+03;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 262 CTCCTCCGCCGGGCAGC 278
|:||:|| |||| ||||
Db 1 CUCCUCCCCCGGCCAGC 17

RESULT 4419
ABA80617
ID ABA80617 standard; DNA; 17 BP.
XX
AC ABA80617;
XX
DT 24-JAN-2002 (first entry)
XX
DE APOE mutation correcting oligonucleotide SEQ ID NO: 3463.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX

```
PN   WO200173002-A2.
XX
PD   04-OCT-2001.
XX
PF   27-MAR-2001; 2001WO-US009761.
XX
PR   27-MAR-2000; 2000US-0192176P.
PR   27-MAR-2000; 2000US-0192179P.
PR   01-JUN-2000; 2000US-0208538P.
PR   30-OCT-2000; 2000US-0244989P.
XX
PA   (UYDE ) UNIV DELAWARE.
XX
PI   Kmiec EB,  Gamper HB,  Rice MC;
XX
DR   WPI; 2001-639230/73.
XX
PT   Oligonucleotide for targeted alterations of genetic sequences and for
PT   treating cystic fibrosis, comprises at least one mismatch and chemical
PT   modification.
XX
PS   Claim 7; Page 234; 294pp; English.
XX
CC   The present invention provides single-stranded oligonucleotides which can
CC   be used for the targeted alteration of genomic sequences, where the
CC   oligonucleotide has at least one mismatch compared with the genomic
CC   sequence to be altered. In particular, these sequences are directed at
CC   the following genes: adenosine deaminase, p53, beta-globin,
CC   retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC   (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC   1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC   apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC   (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC   presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC   such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC   haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC   Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC   various syndromes. The present sequence is one of the gene correcting
CC   oligonucleotides of the invention
XX
SQ   Sequence 17 BP; 1 A; 8 C; 6 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1297 GCTCGCCCCAGTCTTGG 1313
              ||||||||||| | |||
Db          1 GCTCGCCCCAGGCCTGG 17


RESULT 4420
ABA80616/c
ID   ABA80616 standard; DNA; 17 BP.
XX
AC   ABA80616;
XX
DT   24-JAN-2002  (first entry)
XX
DE   APOE mutation correcting oligonucleotide SEQ ID NO: 3462.
XX
KW   Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW   retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW   cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW   adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW   haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW   mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW   familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW   UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW   Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW   antilipemic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200173002-A2.
XX
PD   04-OCT-2001.
XX
PF   27-MAR-2001; 2001WO-US009761.
XX
PR   27-MAR-2000; 2000US-0192176P.
PR   27-MAR-2000; 2000US-0192179P.
PR   01-JUN-2000; 2000US-0208538P.
PR   30-OCT-2000; 2000US-0244989P.
XX
PA   (UYDE ) UNIV DELAWARE.
XX
PI   Kmiec EB,  Gamper HB,  Rice MC;
XX
DR   WPI; 2001-639230/73.
XX
PT   Oligonucleotide for targeted alterations of genetic sequences and for
PT   treating cystic fibrosis, comprises at least one mismatch and chemical
PT   modification.
XX
PS   Claim 7; Page 234; 294pp; English.
XX
CC   The present invention provides single-stranded oligonucleotides which can
CC   be used for the targeted alteration of genomic sequences, where the
CC   oligonucleotide has at least one mismatch compared with the genomic
CC   sequence to be altered. In particular, these sequences are directed at
CC   the following genes: adenosine deaminase, p53, beta-globin,
CC   retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC   (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC   1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC   apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC   (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC   presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC   such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC   haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC   Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC   various syndromes. The present sequence is one of the gene correcting
CC   oligonucleotides of the invention
XX
SQ   Sequence 17 BP; 2 A; 6 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1297 GCTCGCCCCAGTCTTGG 1313
              ||||||||||| | |||
Db         17 GCTCGCCCCAGGCCTGG 1


RESULT 4421
AAH27335/c
ID   AAH27335 standard; DNA; 17 BP.
XX
AC   AAH27335;
XX
DT   08-AUG-2001  (first entry)
XX
DE   PCR primer #4.
XX
KW   Tumour suppressor gene 16; TSG16; immune response modulator;
KW   inflammatory response modulator; signal transduction activator;
KW   cytokine inhibitor; gene therapy; anticancer; anti-inflammatory;
KW   autoimmune disorder; infection; chromosome 16q24.3; human;
KW   cellular proliferation suppressor; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200132861-A1.
XX
PD   10-MAY-2001.
```

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XX
PF   30-OCT-2000; 2000WO-AU001329.
XX
PR   29-OCT-1999;   99AU-00003771.
XX
PA   (WOME-) WOMEN'S & CHILDREN'S HOSPITAL.
XX
PI   Callen DF,  Whitmore SA,  Kremmidiotis G,  Kochetkova M,  Crawford J;
XX
DR   WPI; 2001-316439/33.
XX
PT   New nucleic acid representing the human tumor suppressor gene TSG16,
PT   useful e.g. for diagnosis and treatment of tumors, inflammatory and
PT   immunological disorders.
XX
PS   Disclosure; Page 188; 215pp; English.
XX
CC   The present invention relates to human tumour suppressor gene 16 (TSG16;
CC   see AAH23688). TSG16 was isolated from chromosome 16q24.3. TSG16
CC   suppresses cellular proliferation. TSG16 is useful for treating disorders
CC   associated with decreased expression or activity of TSG16, e.g. cancers,
CC   (auto)immune disorders, inflammation, complications of wound healing and
CC   infections (by viruses, bacteria, fungi, parasites, protozoa or
CC   helminths). The present sequence is a PCR primer, which was used in the
CC   present invention
XX
SQ   Sequence 17 BP; 0 A; 6 C; 7 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        450 CCACAGGCAGCCAGCAG 466
              ||||||||||||| | ||
Db         17 CCACAGGCAGCCCGGAG 1


RESULT 4422
ABN10667
ID   ABN10667 standard; DNA; 17 BP.
XX
AC   ABN10667;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:10659.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 10659; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 3 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        477 CCGGCCGCCAGAGCCAG 493
              ||||  ||||||||||||
Db          1 CCGGTGGCCAGAGCCAG 17


RESULT 4423
ABN02678
ID   ABN02678 standard; DNA; 17 BP.
XX
AC   ABN02678;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:2670.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
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PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 2670; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 0 A; 5 C; 11 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         44 CCCGCGCGCGGCGGGGG 60
              || | ||||||||||||
Db          1 CCTGGGCGCGGCGGGGG 17


RESULT 4424
ABN10666
ID   ABN10666 standard; DNA; 17 BP.
XX
AC   ABN10666;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:10658.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 10658; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 3 A; 7 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        476 CCCGGCCGCCAGAGCCA 492
              |||||  ||||||||||
Db          1 CCCGGTGGCCAGAGCCA 17


RESULT 4425
ABN07651/c
ID   ABN07651 standard; DNA; 17 BP.
```

```
XX
AC   ABN07651;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7643.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 7643; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 9 A; 4 C; 3 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1684 CTTAGTTGTTTCTCTAG 1700
                ||| |||| ||||||||
Db         17 CTTTGTTGGTTCTCTAG 1

RESULT 4426
ABN09312
ID   ABN09312 standard; DNA; 17 BP.
XX
AC   ABN09312;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:9304.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 9304; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
```

CC disorder associated with the expression of hGDMLP-1, in particular heart
CC and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC The present sequence represents an oligomer used in the screening of the
CC hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequence
XX
SQ Sequence 17 BP; 6 A; 7 C; 3 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 452 ACAGGCAGCCAGCAGCA 468
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Db 1 ACAGTCAGCCACCAGCA 17

RESULT 4427
ABN02070/c
ID ABN02070 standard; DNA; 17 BP.
XX
AC ABN02070;
XX
DT 29-MAY-2002 (first entry)
XX
DE Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:2062.
XX
KW Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW skeletal muscle disorder; amplicon; screening; ss.
XX
OS Homo sapiens.
XX
PN WO200192524-A2.
XX
PD 06-DEC-2001.
XX
PF 25-MAY-2001; 2001WO-US016981.
XX
PR 26-MAY-2000; 2000US-0207456P.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
PR 30-JAN-2001; 2001WO-US000661.
PR 30-JAN-2001; 2001WO-US000662.
PR 30-JAN-2001; 2001WO-US000663.
PR 30-JAN-2001; 2001WO-US000664.
PR 30-JAN-2001; 2001WO-US000665.
PR 30-JAN-2001; 2001WO-US000666.
PR 30-JAN-2001; 2001WO-US000667.
PR 30-JAN-2001; 2001WO-US000668.
PR 30-JAN-2001; 2001WO-US000669.
PR 30-JAN-2001; 2001WO-US000670.
PR 05-FEB-2001; 2001US-0266860P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Gu Y, Ji Y, Penn SG, Hanzel DK, Rank DR, Chen W, Shannon ME;
XX
DR WPI; 2002-179446/23.
XX
PT New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT or as specific biomolecule capture probes for surface-enhanced laser
PT desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS Disclosure; SEQ ID NO 2062; 214pp; English.
XX
CC The present invention describes a human genome-derived myosin-like
CC protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC 1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC nucleic acids can be used as probes to detect, characterise and quantify
CC hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC provide initial substrates for the recombinant engineering of hGDMLP-1
CC protein variants having desired phenotypic improvements, and for
CC expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC used as immunogens to raise antibodies that specifically recognise hGDMLP
CC -1 proteins, as standards in assays used to determine the concentration
CC and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC capture probes for surface-enhanced laser desorption ionisation, as
CC therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC production, and in vaccines or for replacement therapy. The
CC polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC disorder associated with the expression of hGDMLP-1, in particular heart
CC and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC The present sequence represents an oligomer used in the screening of the
CC hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequence
XX
SQ Sequence 17 BP; 2 A; 7 C; 5 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1365 TTGGCAGCCAGGCCATC 1381
| ||||| |||||||||
Db 17 TGGGCAGGCAGGCCATC 1

RESULT 4428
ABN02679
ID ABN02679 standard; DNA; 17 BP.
XX
AC ABN02679;
XX
DT 29-MAY-2002 (first entry)
XX
DE Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:2671.
XX
KW Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW skeletal muscle disorder; amplicon; screening; ss.
XX
OS Homo sapiens.
XX
PN WO200192524-A2.
XX
PD 06-DEC-2001.
XX
PF 25-MAY-2001; 2001WO-US016981.
XX
PR 26-MAY-2000; 2000US-0207456P.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
PR 30-JAN-2001; 2001WO-US000661.
PR 30-JAN-2001; 2001WO-US000662.
PR 30-JAN-2001; 2001WO-US000663.
PR 30-JAN-2001; 2001WO-US000664.
PR 30-JAN-2001; 2001WO-US000665.
PR 30-JAN-2001; 2001WO-US000666.
PR 30-JAN-2001; 2001WO-US000667.
PR 30-JAN-2001; 2001WO-US000668.
PR 30-JAN-2001; 2001WO-US000669.
PR 30-JAN-2001; 2001WO-US000670.
PR 05-FEB-2001; 2001US-0266860P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Gu Y, Ji Y, Penn SG, Hanzel DK, Rank DR, Chen W, Shannon ME;
XX
DR WPI; 2002-179446/23.

```
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 2671; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 0 A; 5 C; 11 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         45 CCGCGCGCGGCGGGGGC 61
              | | ||||||||||||||
Db          1 CTGGGCGCGGCGGGGGC 17


RESULT 4429
ABN09313
ID   ABN09313 standard; DNA; 17 BP.
XX
AC   ABN09313;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:9305.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 9305; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 5 A; 7 C; 4 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        453 CAGGCAGCCAGCAGCAG 469
              ||| |||||| ||||||
Db          1 CAGTCAGCCACCAGCAG 17


RESULT 4430
ABN05947
ID   ABN05947 standard; DNA; 17 BP.
XX
AC   ABN05947;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:5939.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
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XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 5939; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 3 A; 4 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        682 CCAGATGGACGAGGTGC 698
              |||| |||| |||||||
Db          1 CCAGCTGGAGGAGGTGC 17


RESULT 4431
ABN07705
ID   ABN07705 standard; DNA; 17 BP.
XX
AC   ABN07705;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7697.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 7697; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 3 A; 7 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        605 GACCTGCTGCTGCCCCA 621
              ||||||| |||| ||||
Db          1 GACCTGCAGCTGGCCCA 17
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RESULT 4432
ABN05946
ID   ABN05946 standard; DNA; 17 BP.
XX
AC   ABN05946;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:5938.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 5938; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 4 A; 3 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        681 ACCAGATGGACGAGGTG 697
              ||||| |||| ||||||
Db          1 ACCAGCTGGAGGAGGTG 17


RESULT 4433
ABN01354/c
ID   ABN01354 standard; DNA; 17 BP.
XX
AC   ABN01354;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:1346.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 1346; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
```

```
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 8 A; 0 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1785 CCCCATTCTTTCCTTCT 1801
              ||||||  |||||||||
Db         17 CCCCATCTTTTCCTTCT 1


RESULT 4434
ABN07650/c
ID   ABN07650 standard; DNA; 17 BP.
XX
AC   ABN07650;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7642.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US016981.
XX
PR   26-MAY-2000; 2000US-0207456P.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   05-FEB-2001; 2001US-0266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins,
PT   or as specific biomolecule capture probes for surface-enhanced laser
PT   desorption ionization, comprises human myosin-like protein hGDMLP-1.
XX
PS   Disclosure; SEQ ID NO 7642; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-
CC   1 can be used in gene therapy and vaccine production. The hGDMLP-1
CC   nucleic acids can be used as probes to detect, characterise and quantify
CC   hGDMLP-1 nucleic acids in samples, as amplification substrates, to
CC   provide initial substrates for the recombinant engineering of hGDMLP-1
CC   protein variants having desired phenotypic improvements, and for
CC   expressing the proteins. The hGDMLP-1 proteins or polypeptides may be
CC   used as immunogens to raise antibodies that specifically recognise hGDMLP
CC   -1 proteins, as standards in assays used to determine the concentration
CC   and/or amount specifically of hGDMLP proteins, as specific biomolecule
CC   capture probes for surface-enhanced laser desorption ionisation, as
CC   therapeutic supplement in patients having specific deficiency in hGDMLP-1
CC   production, and in vaccines or for replacement therapy. The
CC   polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a
CC   disorder associated with the expression of hGDMLP-1, in particular heart
CC   and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.
CC   The present sequence represents an oligomer used in the screening of the
CC   hGDMLP-1 sequence in the exemplification of the present invention. N.B.
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence
XX
SQ   Sequence 17 BP; 9 A; 4 C; 3 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1685 TTAGTTGTTTCTCTAGC 1701
              || |||| |||||||||
Db         17 TTTGTTGGTTCTCTAGC 1


RESULT 4435
ABQ63368
ID   ABQ63368 standard; DNA; 17 BP.
XX
AC   ABQ63368;
XX
DT   20-AUG-2002  (first entry)
XX
DE   Human KTOM1a portion (ABQ63232) probe # 81.
XX
KW   Human; KTOM1a; KTOM1; kidney tumour overexpressed membrane; cytostatic;
KW   gene therapy; cancer; kidney; liver; bone marrow; brain; heart; lung;
KW   kidney; colon; skeletal muscle; testis; uterus; placenta; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200224750-A2.
XX
PD   28-MAR-2002.
XX
PF   21-SEP-2001; 2001WO-US029656.
XX
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   23-MAY-2001; 2001US-00864761.
PR   28-AUG-2001; 2001US-0315676P.
XX
PA   (AEOM-) AEOMICA INC.
```

XX
PI Zhang J;
XX
DR WPI; 2002-479509/51.
XX
PT New human kidney tumor overexpressed membrane (KTOM1) protein and nucleic
PT acids encoding the protein, useful for treating subjects having defects
PT in KTOM1 which can manifest as cancer of the kidney, or as a disorder of
PT e.g., liver or bone.
XX
PS Example 2; Page 168; 418pp; English.
XX
CC The invention relates to a novel isolated nucleic acid encoding human
CC KTOM1 (kidney tumour overexpressed membrane) protein. The protein of the
CC invention has cytostatic activity. The nucleotide may have a use in gene
CC therapy. The KTOM1 nucleic acids may be used to diagnose, treat or
CC monitor a disease caused by altered expression of human KTOM1.
CC Compositions comprising the nucleic acids, proteins or antibodies may be
CC used to treat subjects having defects in KTOM1 which can manifest as
CC cancer of the kidney, as well as a disorder of liver, bone marrow, brain,
CC heart, lung, kidney, colon, skeletal muscle, testis, uterus and placenta
CC function. The sequence represents a probe used in the invention to scan
CC the nt 1-1001 portion of human KTOM1a (ABQ63232)
XX
SQ Sequence 17 BP; 3 A; 4 C; 5 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 161 GACGCCATGTTGTGGAA 177
||| || ||||||||||
Db 1 GACTCCCTGTTGTGGAA 17

RESULT 4436
ABQ64270/c
ID ABQ64270 standard; DNA; 17 BP.
XX
AC ABQ64270;
XX
DT 20-AUG-2002 (first entry)
XX
DE Human KTOM1a portion (ABQ63232) probe # 983.
XX
KW Human; KTOM1a; KTOM1; kidney tumour overexpressed membrane; cytostatic;
KW gene therapy; cancer; kidney; liver; bone marrow; brain; heart; lung;
KW kidney; colon; skeletal muscle; testis; uterus; placenta; probe; ss.
XX
OS Homo sapiens.
XX
PN WO200224750-A2.
XX
PD 28-MAR-2002.
XX
PF 21-SEP-2001; 2001WO-US029656.
XX
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
PR 30-JAN-2001; 2001WO-US000661.
PR 30-JAN-2001; 2001WO-US000662.
PR 30-JAN-2001; 2001WO-US000663.
PR 30-JAN-2001; 2001WO-US000664.
PR 30-JAN-2001; 2001WO-US000665.
PR 30-JAN-2001; 2001WO-US000666.
PR 30-JAN-2001; 2001WO-US000667.
PR 30-JAN-2001; 2001WO-US000668.
PR 30-JAN-2001; 2001WO-US000669.
PR 30-JAN-2001; 2001WO-US000670.
PR 23-MAY-2001; 2001US-00864761.
PR 28-AUG-2001; 2001US-0315676P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Zhang J;
XX
DR WPI; 2002-479509/51.
XX
PT New human kidney tumor overexpressed membrane (KTOM1) protein and nucleic
PT acids encoding the protein, useful for treating subjects having defects
PT in KTOM1 which can manifest as cancer of the kidney, or as a disorder of
PT e.g., liver or bone.
XX
PS Example 2; Page 286; 418pp; English.
XX
CC The invention relates to a novel isolated nucleic acid encoding human
CC KTOM1 (kidney tumour overexpressed membrane) protein. The protein of the
CC invention has cytostatic activity. The nucleotide may have a use in gene
CC therapy. The KTOM1 nucleic acids may be used to diagnose, treat or
CC monitor a disease caused by altered expression of human KTOM1.
CC Compositions comprising the nucleic acids, proteins or antibodies may be
CC used to treat subjects having defects in KTOM1 which can manifest as
CC cancer of the kidney, as well as a disorder of liver, bone marrow, brain,
CC heart, lung, kidney, colon, skeletal muscle, testis, uterus and placenta
CC function. The sequence represents a probe used in the invention to scan
CC the nt 1-1001 portion of human KTOM1a (ABQ63232)
XX
SQ Sequence 17 BP; 2 A; 5 C; 8 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 464 CAGCAGGCCTGGCCCGG 480
||||| ||||||||||
Db 17 CAGCATCCCTGGCCCGG 1

RESULT 4437
ABQ64271/c
ID ABQ64271 standard; DNA; 17 BP.
XX
AC ABQ64271;
XX
DT 20-AUG-2002 (first entry)
XX
DE Human KTOM1a portion (ABQ63232) probe # 984.
XX
KW Human; KTOM1a; KTOM1; kidney tumour overexpressed membrane; cytostatic;
KW gene therapy; cancer; kidney; liver; bone marrow; brain; heart; lung;
KW kidney; colon; skeletal muscle; testis; uterus; placenta; probe; ss.
XX
OS Homo sapiens.
XX
PN WO200224750-A2.
XX
PD 28-MAR-2002.
XX
PF 21-SEP-2001; 2001WO-US029656.
XX
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
PR 30-JAN-2001; 2001WO-US000661.
PR 30-JAN-2001; 2001WO-US000662.
PR 30-JAN-2001; 2001WO-US000663.
PR 30-JAN-2001; 2001WO-US000664.
PR 30-JAN-2001; 2001WO-US000665.
PR 30-JAN-2001; 2001WO-US000666.
PR 30-JAN-2001; 2001WO-US000667.
PR 30-JAN-2001; 2001WO-US000668.
PR 30-JAN-2001; 2001WO-US000669.
PR 30-JAN-2001; 2001WO-US000670.
PR 23-MAY-2001; 2001US-00864761.
PR 28-AUG-2001; 2001US-0315676P.

```
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhang J;
XX
DR   WPI; 2002-479509/51.
XX
PT   New human kidney tumor overexpressed membrane (KTOM1) protein and nucleic
PT   acids encoding the protein, useful for treating subjects having defects
PT   in KTOM1 which can manifest as cancer of the kidney, or as a disorder of
PT   e.g., liver or bone.
XX
PS   Example 2; Page 286; 418pp; English.
XX
CC   The invention relates to a novel isolated nucleic acid encoding human
CC   KTOM1 (kidney tumour overexpressed membrane) protein. The protein of the
CC   invention has cytostatic activity. The nucleotide may have a use in gene
CC   therapy. The KTOM1 nucleic acids may be used to diagnose, treat or
CC   monitor a disease caused by altered expression of human KTOM1.
CC   Compositions comprising the nucleic acids, proteins or antibodies may be
CC   used to treat subjects having defects in KTOM1 which can manifest as
CC   cancer of the kidney, as well as a disorder of liver, bone marrow, brain,
CC   heart, lung, kidney, colon, skeletal muscle, testis, uterus and placenta
CC   function. The sequence represents a probe used in the invention to scan
CC   the nt 1-1001 portion of human KTOM1a (ABQ63232)
XX
SQ   Sequence 17 BP; 2 A; 5 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        463 GCAGCAGGCCTGGCCCG 479
              ||||||  |||||||||
Db         17 GCAGCATCCCTGGCCCG 1


RESULT 4438
ABQ64272/c
ID   ABQ64272 standard; DNA; 17 BP.
XX
AC   ABQ64272;
XX
DT   20-AUG-2002  (first entry)
XX
DE   Human KTOM1a portion (ABQ63232) probe # 985.
XX
KW   Human; KTOM1a; KTOM1; kidney tumour overexpressed membrane; cytostatic;
KW   gene therapy; cancer; kidney; liver; bone marrow; brain; heart; lung;
KW   kidney; colon; skeletal muscle; testis; uterus; placenta; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200224750-A2.
XX
PD   28-MAR-2002.
XX
PF   21-SEP-2001; 2001WO-US029656.
XX
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
PR   23-MAY-2001; 2001US-00864761.
PR   28-AUG-2001; 2001US-0315676P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhang J;
XX
DR   WPI; 2002-479509/51.
XX
PT   New human kidney tumor overexpressed membrane (KTOM1) protein and nucleic
PT   acids encoding the protein, useful for treating subjects having defects
PT   in KTOM1 which can manifest as cancer of the kidney, or as a disorder of
PT   e.g., liver or bone.
XX
PS   Example 2; Page 286; 418pp; English.
XX
CC   The invention relates to a novel isolated nucleic acid encoding human
CC   KTOM1 (kidney tumour overexpressed membrane) protein. The protein of the
CC   invention has cytostatic activity. The nucleotide may have a use in gene
CC   therapy. The KTOM1 nucleic acids may be used to diagnose, treat or
CC   monitor a disease caused by altered expression of human KTOM1.
CC   Compositions comprising the nucleic acids, proteins or antibodies may be
CC   used to treat subjects having defects in KTOM1 which can manifest as
CC   cancer of the kidney, as well as a disorder of liver, bone marrow, brain,
CC   heart, lung, kidney, colon, skeletal muscle, testis, uterus and placenta
CC   function. The sequence represents a probe used in the invention to scan
CC   the nt 1-1001 portion of human KTOM1a (ABQ63232)
XX
SQ   Sequence 17 BP; 2 A; 4 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        462 AGCAGCAGGCCTGGCCC 478
              |||||||  ||||||||
Db         17 AGCAGCATCCCTGGCCC 1


RESULT 4439
ABQ63367
ID   ABQ63367 standard; DNA; 17 BP.
XX
AC   ABQ63367;
XX
DT   20-AUG-2002  (first entry)
XX
DE   Human KTOM1a portion (ABQ63232) probe # 80.
XX
KW   Human; KTOM1a; KTOM1; kidney tumour overexpressed membrane; cytostatic;
KW   gene therapy; cancer; kidney; liver; bone marrow; brain; heart; lung;
KW   kidney; colon; skeletal muscle; testis; uterus; placenta; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200224750-A2.
XX
PD   28-MAR-2002.
XX
PF   21-SEP-2001; 2001WO-US029656.
XX
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
PR   30-JAN-2001; 2001WO-US000661.
PR   30-JAN-2001; 2001WO-US000662.
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000666.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   30-JAN-2001; 2001WO-US000670.
```

PR 23-MAY-2001; 2001US-00864761.
PR 28-AUG-2001; 2001US-0315676P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Zhang J;
XX
DR WPI; 2002-479509/51.
XX
PT New human kidney tumor overexpressed membrane (KTOM1) protein and nucleic
PT acids encoding the protein, useful for treating subjects having defects
PT in KTOM1 which can manifest as cancer of the kidney, or as a disorder of
PT e.g., liver or bone.
XX
PS Example 2; Page 168; 418pp; English.
XX
CC The invention relates to a novel isolated nucleic acid encoding human
CC KTOM1 (kidney tumour overexpressed membrane) protein. The protein of the
CC invention has cytostatic activity. The nucleotide may have a use in gene
CC therapy. The KTOM1 nucleic acids may be used to diagnose, treat or
CC monitor a disease caused by altered expression of human KTOM1.
CC Compositions comprising the nucleic acids, proteins or antibodies may be
CC used to treat subjects having defects in KTOM1 which can manifest as
CC cancer of the kidney, as well as a disorder of liver, bone marrow, brain,
CC heart, lung, kidney, colon, skeletal muscle, testis, uterus and placenta
CC function. The sequence represents a probe used in the invention to scan
CC the nt 1-1001 portion of human KTOM1a (ABQ63232)
XX
SQ Sequence 17 BP; 2 A; 4 C; 6 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 160 GGACGCCATGTTGTGGA 176
|||| || |||||||||
Db 1 GGACTCCCTGTTGTGGA 17

RESULT 4440
ABK27279
ID ABK27279 standard; DNA; 17 BP.
XX
AC ABK27279;
XX
DT 09-APR-2002 (first entry)
XX
DE Reduced linolenic acid production genome altering oligonucleotide #175.
XX
KW Chromosomal genomic alteration; genome altering oligonucleotide; PCR; ss;
KW o-methyl modification; LNA modification; phosphorothioate linkage;
KW DNA repair; DNA alteration; environmental tolerance; hygromycin-B;
KW abiotic stress tolerance; improved nutritional value; hygromycin; primer;
KW amino acid over production; herbicide resistance; glyphosate resistance;
KW imidazolinone herbicide resistance; sulphonylurea herbicide resistance;
KW porphyric herbicide resistance; triazine resistance; disease resistance;
KW modified oil production; modified starch production; waxy starch;
KW altered floral morphology; male-sterile plant; albino mutant;
KW modified fatty acid content; reduced palmitate production; albino plant;
KW increased stearate production; reduced linolenic acid production;
KW photosynthetic process.
XX
OS Zea mays.
OS Synthetic.
XX
PN WO200192512-A2.
XX
PD 06-DEC-2001.
XX
PF 01-JUN-2001; 2001WO-US017672.
XX
PR 01-JUN-2000; 2000US-0208538P.
PR 30-OCT-2000; 2000US-0244989P.
PR 27-MAR-2001; 2001US-00818875.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC, Kim J;
XX
DR WPI; 2002-106307/14.
XX
PT New oligonucleotides with modified nuclease-resistant termini, useful for
PT creating plants with desired phenotypes, e.g. stress tolerance, improved
PT nutritional value, herbicide or disease resistance, or modified oil
PT production.
XX
PS Claim 7; Page 200; 220pp; English.
XX
CC The invention relates to an oligonucleotide for targeted alteration of a
CC genetic sequence, which comprises a single-stranded oligonucleotide
CC having a DNA domain. The DNA domain has at least one mismatch with
CC respect to the genetic sequence to be altered and further comprises
CC chemical modifications of the oligonucleotide. The chemical modifications
CC consist of o-methyl modification, an LNA modification, two or more
CC phosphorothioate linkages on a terminus, or a combination of any two or
CC more of these modifications. The oligonucleotides are useful for
CC directing repair or alteration of plant genetic information. The
CC oligonucleotides are particularly useful for creating plants with desired
CC phenotypes, e.g. environmental or abiotic stress tolerance, improved
CC nutritional value (e.g. altering amino acid content of plants or
CC conferring amino acid over production), herbicide resistance (e.g.
CC glyphosate resistance, imidazolinone and sulphonylurea herbicide
CC resistance, porphyric herbicide resistance or triazine resistance),
CC disease resistance, modified oil production, modified starch production
CC (e.g. increased starch or production of waxy starch), altered floral
CC morphology (e.g. male-sterile plants) or modified fatty acid content
CC (e.g. reduced palmitate, increased stearate or reduced linolenic acid).
CC The oligonucleotides are also useful for producing albino mutants for the
CC analysis of photosynthetic processes. This sequence represents a genome
CC altering oligonucleotide of the invention
XX
SQ Sequence 17 BP; 1 A; 8 C; 7 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 566 GGCGCGGTGAGCGCCCG 582
|||||||||| | ||||
Db 1 GGCGCGGTGACCCCCCG 17

RESULT 4441
ABK27280/c
ID ABK27280 standard; DNA; 17 BP.
XX
AC ABK27280;
XX
DT 09-APR-2002 (first entry)
XX
DE Reduced linolenic acid production genome altering oligonucleotide #176.
XX
KW Chromosomal genomic alteration; genome altering oligonucleotide; PCR; ss;
KW o-methyl modification; LNA modification; phosphorothioate linkage;
KW DNA repair; DNA alteration; environmental tolerance; hygromycin-B;
KW abiotic stress tolerance; improved nutritional value; hygromycin; primer;
KW amino acid over production; herbicide resistance; glyphosate resistance;
KW imidazolinone herbicide resistance; sulphonylurea herbicide resistance;
KW porphyric herbicide resistance; triazine resistance; disease resistance;
KW modified oil production; modified starch production; waxy starch;
KW altered floral morphology; male-sterile plant; albino mutant;
KW modified fatty acid content; reduced palmitate production; albino plant;
KW increased stearate production; reduced linolenic acid production;
KW photosynthetic process.
XX
OS Zea mays.

OS Synthetic.
XX
PN WO200192512-A2.
XX
PD 06-DEC-2001.
XX
PF 01-JUN-2001; 2001WO-US017672.
XX
PR 01-JUN-2000; 2000US-0208538P.
PR 30-OCT-2000; 2000US-0244989P.
PR 27-MAR-2001; 2001US-00818875.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC, Kim J;
XX
DR WPI; 2002-106307/14.
XX
PT New oligonucleotides with modified nuclease-resistant termini, useful for
PT creating plants with desired phenotypes, e.g. stress tolerance, improved
PT nutritional value, herbicide or disease resistance, or modified oil
PT production.
XX
PS Claim 7; Page 200; 220pp; English.
XX
CC The invention relates to an oligonucleotide for targeted alteration of a
CC genetic sequence, which comprises a single-stranded oligonucleotide
CC having a DNA domain. The DNA domain has at least one mismatch with
CC respect to the genetic sequence to be altered and further comprises
CC chemical modifications of the oligonucleotide. The chemical modifications
CC consist of o-methyl modification, an LNA modification, two or more
CC phosphorothioate linkages on a terminus, or a combination of any two or
CC more of these modifications. The oligonucleotides are useful for
CC directing repair or alteration of plant genetic information. The
CC oligonucleotides are particularly useful for creating plants with desired
CC phenotypes, e.g. environmental or abiotic stress tolerance, improved
CC nutritional value (e.g. altering amino acid content of plants or
CC conferring amino acid over production), herbicide resistance (e.g.
CC glyphosate resistance, imidazolinone and sulphonylurea herbicide
CC resistance, porphyric herbicide resistance or triazine resistance),
CC disease resistance, modified oil production, modified starch production
CC (e.g. increased starch or production of waxy starch), altered floral
CC morphology (e.g. male-sterile plants) or modified fatty acid content
CC (e.g. reduced palmitate, increased stearate or reduced linolenic acid).
CC The oligonucleotides are also useful for producing albino mutants for the
CC analysis of photosynthetic processes. This sequence represents a genome
CC altering oligonucleotide of the invention
XX
SQ Sequence 17 BP; 1 A; 7 C; 8 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 566 GGCGCGGTGAGCGCCCG 582
||||||||| | ||||
Db 17 GGCGCGGTGACCCCCCG 1

RESULT 4442
ABV83073
ID ABV83073 standard; DNA; 17 BP.
XX
AC ABV83073;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 4319.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;
KW male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS Homo sapiens.
XX
PN EP1229046-A2.
XX
PD 07-AUG-2002.
XX
PF 28-JAN-2002; 2002EP-00001167.
XX
PR 30-JAN-2001; 2001WO-US000663.
PR 30-JAN-2001; 2001WO-US000664.
PR 30-JAN-2001; 2001WO-US000665.
PR 30-JAN-2001; 2001WO-US000667.
PR 30-JAN-2001; 2001WO-US000668.
PR 30-JAN-2001; 2001WO-US000669.
PR 23-MAY-2001; 2001US-00864761.
PR 09-OCT-2001; 2001US-0327898P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Zhan J;
XX
DR WPI; 2002-676582/73.
XX
PT Novel isolated human testis expressed Patched like protein (HTPL), useful
PT for identifying agonist and antagonist and specific binding partners, and
PT for treating subjects having defects in HTPL.
XX
PS Example 2; Page 630; 718pp; English.
XX
CC The present invention relates to human testis expressed Patched like
CC protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC has two isoforms, with a few single base pair differences between the
CC two. One of the single base pair changes introduces a premature stop
CC codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC shares an overall structure organisation with the Patched protein. The
CC shared structural features strongly imply that HTPL plays a role similar
CC to that of Patched, and is a potential tumour suppressor. HTPL is
CC important in regulating male germ cell development, and the HTPL gene was
CC mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC useful for diagnosing a disorder caused by mutation in HTPL, and in
CC therapy and manufacture of a medicament for treatment or prevention of
CC such disorder associated with decreased expression or activity of human
CC HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC clinically useful diagnostic markers and potenial therapeutic agents for
CC male infertility and cancer. The present oligonucleotide was used in an
CC example from the invention
XX
SQ Sequence 17 BP; 6 A; 0 C; 3 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2251 AAGCTTTATTTGCATAT 2267
||| |||||||| ||||
Db 1 AAGGTTTATTTGAATAT 17

RESULT 4443
ABV83072
ID ABV83072 standard; DNA; 17 BP.
XX
AC ABV83072;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 4318.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;

```
KW   male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW   prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   EP1229046-A2.
XX
PD   07-AUG-2002.
XX
PF   28-JAN-2002; 2002EP-00001167.
XX
PR   30-JAN-2001; 2001WO-US000663.
PR   30-JAN-2001; 2001WO-US000664.
PR   30-JAN-2001; 2001WO-US000665.
PR   30-JAN-2001; 2001WO-US000667.
PR   30-JAN-2001; 2001WO-US000668.
PR   30-JAN-2001; 2001WO-US000669.
PR   23-MAY-2001; 2001US-00864761.
PR   09-OCT-2001; 2001US-0327898P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhan J;
XX
DR   WPI; 2002-676582/73.
XX
PT   Novel isolated human testis expressed Patched like protein (HTPL), useful
PT   for identifying agonist and antagonist and specific binding partners, and
PT   for treating subjects having defects in HTPL.
XX
PS   Example 2; Page 630; 718pp; English.
XX
CC   The present invention relates to human testis expressed Patched like
CC   protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC   has two isoforms, with a few single base pair differences between the
CC   two. One of the single base pair changes introduces a premature stop
CC   codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC   shares an overall structure organisation with the Patched protein. The
CC   shared structural features strongly imply that HTPL plays a role similar
CC   to that of Patched, and is a potential tumour suppressor. HTPL is
CC   important in regulating male germ cell development, and the HTPL gene was
CC   mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC   useful for diagnosing a disorder caused by mutation in HTPL, and in
CC   therapy and manufacture of a medicament for treatment or prevention of
CC   such disorder associated with decreased expression or activity of human
CC   HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC   foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC   skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC   clinically useful diagnostic markers and potenial therapeutic agents for
CC   male infertility and cancer. The present oligonucleotide was used in an
CC   example from the invention
XX
SQ   Sequence 17 BP; 6 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2250 GAAGCTTTATTTGCATA 2266
              |||| |||||||| |||
Db          1 GAAGGTTTATTTGAATA 17


RESULT 4444
ABK17920/c
ID   ABK17920 standard; RNA; 17 BP.
XX
AC   ABK17920;
XX
DT   09-APR-2002  (first entry)
XX
DE   Human ERG hammerhead ribozyme target sequence, Seq ID No 567.
XX
KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW   angicfibroma of tuberous sclerosis; port-wine stain; wound healing;
KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW   amberzyme.
XX
OS   Homo sapiens.
XX
PN   WO200188124-A2.
XX
PD   22-NOV-2001.
XX
PF   16-MAY-2001; 2001WO-US015866.
XX
PR   16-MAY-2000; 2000US-00572021.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Jarvis T,  Von Carlowitz I,  Mcswiggen JA,  Mclaughlin F,  Randi AM;
XX
DR   WPI; 2002-082995/11.
XX
PT   Novel polynucleotide which down regulates expression of Ets-related gene,
PT   useful for treating cancer, diabetic retinopathy, macular degeneration,
PT   arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome.
XX
PS   Claim 4; Page 69; 149pp; English.
XX
CC   The invention relates to a nucleic acid molecule (I) which down regulates
CC   expression of an Ets-related gene (ERG). (I) is useful for treating
CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC   treating a patient having a condition associated with the level of ERG,
CC   by contacting cells of the patient with (I) under conditions suitable for
CC   the treatment. The method comprises the use of one or more therapies
CC   under conditions suitable for the treatment. Leukaemia or tumour
CC   angiogenesis is treated by administering (I) to the patient in
CC   conjunction with one or more of other therapies such as radiation or
CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC   diseases related to the expression of ERG, and as diagnostic tool to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of ERG RNA in a cell. (I) is useful for specifically
CC   targeting genes that share homology with ERG gene or ERG fusion genes.
CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
CC   related PCR primers of the invention
XX
SQ   Sequence 17 BP; 1 A; 10 C; 3 G; 0 T; 3 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        556 GCTGGAGGCGGGCGCGG 572
              |||||||| || |||||
Db         17 GCTGGAGGAGGACGCGG 1


RESULT 4445
ABK17919/c
ID   ABK17919 standard; RNA; 17 BP.
```

XX
AC ABK17919;
XX
DT 09-APR-2002 (first entry)
XX
DE Human ERG hammerhead ribozyme target sequence, Seq ID No 566.
XX
KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW amberzyme.
XX
OS Homo sapiens.
XX
PN WO200188124-A2.
XX
PD 22-NOV-2001.
XX
PF 16-MAY-2001; 2001WO-US015866.
XX
PR 16-MAY-2000; 2000US-00572021.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (GLAX) GLAXO GROUP LTD.
XX
PI Jarvis T, Von Carlowitz I, Mcswiggen JA, Mclaughlin F, Randi AM;
XX
DR WPI; 2002-082995/11.
XX
PT Novel polynucleotide which down regulates expression of Ets-related gene,
PT useful for treating cancer, diabetic retinopathy, macular degeneration,
PT arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome.
XX
PS Claim 4; Page 69; 149pp; English.
XX
CC The invention relates to a nucleic acid molecule (I) which down regulates
CC expression of an Ets-related gene (ERG). (I) is useful for treating
CC conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC treating a patient having a condition associated with the level of ERG,
CC by contacting cells of the patient with (I) under conditions suitable for
CC the treatment. The method comprises the use of one or more therapies
CC under conditions suitable for the treatment. Leukaemia or tumour
CC angiogenesis is treated by administering (I) to the patient in
CC conjunction with one or more of other therapies such as radiation or
CC chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC diseases related to the expression of ERG, and as diagnostic tool to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of ERG RNA in a cell. (I) is useful for specifically
CC targeting genes that share homology with ERG gene or ERG fusion genes.
CC ABK17354-ABK22719 represent nucleic acids, including antisense and
CC enzymatic nucleic acid molecules which regulate expression of ERG, and
CC related PCR primers of the invention
XX
SQ Sequence 17 BP; 2 A; 9 C; 3 G; 0 T; 3 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 557 CTGGAGGCGGGCGCGGT 573
|||||| || ||||||
Db 17 CTGGAGGAGGACGCGGT 1

RESULT 4446
AAD41894/c
ID AAD41894 standard; DNA; 17 BP.
XX
AC AAD41894;
XX
DT 30-OCT-2002 (first entry)
XX
DE Target DNA #4 used in the exemplification of the invention.
XX
KW Antisense therapy; infection; cardiovascular disorder; immune reaction;
KW gene therapy; virucide; cytostatic; antibacterial; antiinflammatory;
KW cancer; cardiant; ds.
XX
OS Unidentified.
XX
PN US6380368-B1.
XX
PD 30-APR-2002.
XX
PF 12-FEB-1996; 96US-00599738.
XX
PR 26-NOV-1991; 91US-00799824.
PR 25-AUG-1992; 92US-00935444.
PR 23-OCT-1992; 92US-00965941.
PR 25-NOV-1992; 92US-00976103.
PR 14-NOV-1994; 94US-00338352.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Froehler B, Wagner R, Mattencci M, Jones RJ, Gutierrez AJ;
PI Pudlo J;
XX
DR WPI; 2002-535437/57.
XX
PT New oligomers useful for binding to DNA duplex target sequence and for
PT treating e.g. diseases caused by viruses and inflammatory conditions
PT comprise at least three 3'-5' linked nucleosides.
XX
PS Example 17; Col 53; 106pp; English.
XX
CC The present invention relates to novel oligomers which have enhanced
CC ability with respect to forming duplexes or triplexes. The oligomers
CC comprise at least three 3'-5' linked nucleosides or their salts. At least
CC one internucleoside linkage is not a phosphodiester linkage and at least
CC one nucleoside comprises a base. Sequences of the invention are useful
CC for binding to a DNA duplex target sequence via either CT or GT triplex
CC helix binding motif and in antisense therapies. They are also used for
CC treating diseases caused by viruses and for diagnostic applications to
CC detect viral infections, bacterial infections and diseases such as
CC cancers. The oligomers are also used as primers, in the treatment of
CC pathological conditions associated with inflammatory conditions,
CC cardiovascular disorders, immune reactions and bacterial infections and
CC for modulating target gene expression. They are also useful in gene
CC therapy. The present sequence is a target DNA used in the exemplification
CC of the invention
XX
SQ Sequence 17 BP; 12 A; 0 C; 5 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2156 TTTTTTCTCCTTTTTTT 2172
||||| ||||||| |||
Db 17 TTTTTCCTCCTTTCTTT 1

RESULT 4447

```
ABS74958
ID   ABS74958 standard; DNA; 17 BP.
XX
AC   ABS74958;
XX
DT   24-DEC-2002  (first entry)
XX
DE   Human PAPP-Ea associated 17-mer SEQ ID 484.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
PA   (SHAN/) SHANNON M E.
XX
PI   Gu Y,  Shannon ME;
XX
DR   WPI; 2002-697817/75.
XX
PT   New isolated nucleic acid encoding an isoform of human pregnancy
PT   associated plasma protein E, for preventing or aborting pregnancy.
XX
PS   Example 2; Page 138; 353pp; English.
XX
CC   This invention describes a novel isolated nucleic acid that encodes one
CC   of three new isoforms of human pregnancy associated plasma protein E,
CC   hPAPP-E. The products of the invention have abortive and contraceptive
CC   activity and can be used for gene therapy or in a vaccine. The nucleic
CC   acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC   used in pharmaceutical compositions or vaccines for preventing or
CC   aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC   dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 17 BP; 15 A; 0 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||||||| ||| |||
Db          1 AAAAAAAAAGAAAGAAA 17


RESULT 4448
ABS74958/c
ID   ABS74958 standard; DNA; 17 BP.
XX
AC   ABS74958;
XX
DT   24-DEC-2002  (first entry)
XX
DE   Human PAPP-Ea associated 17-mer SEQ ID 484.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
PA   (SHAN/) SHANNON M E.
XX
PI   Gu Y,  Shannon ME;
XX
DR   WPI; 2002-697817/75.
XX
PT   New isolated nucleic acid encoding an isoform of human pregnancy
PT   associated plasma protein E, for preventing or aborting pregnancy.
XX
PS   Example 2; Page 138; 353pp; English.
XX
CC   This invention describes a novel isolated nucleic acid that encodes one
CC   of three new isoforms of human pregnancy associated plasma protein E,
CC   hPAPP-E. The products of the invention have abortive and contraceptive
CC   activity and can be used for gene therapy or in a vaccine. The nucleic
CC   acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC   used in pharmaceutical compositions or vaccines for preventing or
CC   aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC   dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 17 BP; 15 A; 0 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTT 2182
              ||| ||| |||||||||
Db         17 TTTCTTTCTTTTTTTTT 1


RESULT 4449
ABS74957
ID   ABS74957 standard; DNA; 17 BP.
XX
AC   ABS74957;
XX
DT   24-DEC-2002  (first entry)
XX
DE   Human PAPP-Ea associated 17-mer SEQ ID 483.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
```

PA (SHAN/) SHANNON M E.
XX
PI Gu Y, Shannon ME;
XX
DR WPI; 2002-697817/75.
XX
PT New isolated nucleic acid encoding an isoform of human pregnancy
PT associated plasma protein E, for preventing or aborting pregnancy.
XX
PS Example 2; Page 138; 353pp; English.
XX
CC This invention describes a novel isolated nucleic acid that encodes one
CC of three new isoforms of human pregnancy associated plasma protein E,
CC hPAPP-E. The products of the invention have abortive and contraceptive
CC activity and can be used for gene therapy or in a vaccine. The nucleic
CC acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC used in pharmaceutical compositions or vaccines for preventing or
CC aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC antibodies can be used to assess the expression levels of PAPP-E isoform
CC proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC antenatally. This sequence represents an oligomer used in scanning the
CC human PAPP-E genes described in the disclosure of the invention
XX
SQ Sequence 17 BP; 14 A; 0 C; 3 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAA 2801
||||||||||| ||| ||
Db 1 GAAAAAAAAAGAAAGAA 17

RESULT 4450
ABS76194
ID ABS76194 standard; DNA; 17 BP.
XX
AC ABS76194;
XX
DT 27-DEC-2002 (first entry)
XX
DE Human PAPP-Eb associated 17-mer SEQ ID 1720.
XX
KW PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW dysgenetic pregnancy; primer; ss.
XX
OS Homo sapiens.
XX
PN US2002102252-A1.
XX
PD 01-AUG-2002.
XX
PF 06-APR-2001; 2001US-00827998.
XX
PR 26-MAY-2000; 2000US-0207456P.
XX
PA (GUYY/) GU Y.
PA (SHAN/) SHANNON M E.
XX
PI Gu Y, Shannon ME;
XX
DR WPI; 2002-697817/75.
XX
PT New isolated nucleic acid encoding an isoform of human pregnancy
PT associated plasma protein E, for preventing or aborting pregnancy.
XX
PS Example 2; Page 301; 353pp; English.
XX
CC This invention describes a novel isolated nucleic acid that encodes one
CC of three new isoforms of human pregnancy associated plasma protein E,
CC hPAPP-E. The products of the invention have abortive and contraceptive
CC activity and can be used for gene therapy or in a vaccine. The nucleic
CC acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC used in pharmaceutical compositions or vaccines for preventing or
CC aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC antibodies can be used to assess the expression levels of PAPP-E isoform
CC proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC antenatally. This sequence represents an oligomer used in scanning the
CC human PAPP-E genes described in the disclosure of the invention
XX
SQ Sequence 17 BP; 1 A; 4 C; 5 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2313 CAATTTGTTGCTGCTTG 2329
| | ||||||||||||||
Db 1 CCAGTTGTTGCTGCTTG 17

RESULT 4451
ABS76191
ID ABS76191 standard; DNA; 17 BP.
XX
AC ABS76191;
XX
DT 27-DEC-2002 (first entry)
XX
DE Human PAPP-Eb associated 17-mer SEQ ID 1717.
XX
KW PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW dysgenetic pregnancy; primer; ss.
XX
OS Homo sapiens.
XX
PN US2002102252-A1.
XX
PD 01-AUG-2002.
XX
PF 06-APR-2001; 2001US-00827998.
XX
PR 26-MAY-2000; 2000US-0207456P.
XX
PA (GUYY/) GU Y.
PA (SHAN/) SHANNON M E.
XX
PI Gu Y, Shannon ME;
XX
DR WPI; 2002-697817/75.
XX
PT New isolated nucleic acid encoding an isoform of human pregnancy
PT associated plasma protein E, for preventing or aborting pregnancy.
XX
PS Example 2; Page 301; 353pp; English.
XX
CC This invention describes a novel isolated nucleic acid that encodes one
CC of three new isoforms of human pregnancy associated plasma protein E,
CC hPAPP-E. The products of the invention have abortive and contraceptive
CC activity and can be used for gene therapy or in a vaccine. The nucleic
CC acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC used in pharmaceutical compositions or vaccines for preventing or
CC aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC antibodies can be used to assess the expression levels of PAPP-E isoform
CC proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC antenatally. This sequence represents an oligomer used in scanning the
CC human PAPP-E genes described in the disclosure of the invention

```
XX
SQ   Sequence 17 BP; 3 A; 4 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2310 AAGCAATTTGTTGCTGC 2326
              |||| | ||||||||||
Db          1 AAGCCAGTTGTTGCTGC 17


RESULT 4452
ABS76193
ID   ABS76193 standard; DNA; 17 BP.
XX
AC   ABS76193;
XX
DT   27-DEC-2002  (first entry)
XX
DE   Human PAPP-Eb associated 17-mer SEQ ID 1719.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
PA   (SHAN/) SHANNON M E.
XX
PI   Gu Y,  Shannon ME;
XX
DR   WPI; 2002-697817/75.
XX
PT   New isolated nucleic acid encoding an isoform of human pregnancy
PT   associated plasma protein E, for preventing or aborting pregnancy.
XX
PS   Example 2; Page 301; 353pp; English.
XX
CC   This invention describes a novel isolated nucleic acid that encodes one
CC   of three new isoforms of human pregnancy associated plasma protein E,
CC   hPAPP-E. The products of the invention have abortive and contraceptive
CC   activity and can be used for gene therapy or in a vaccine. The nucleic
CC   acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC   used in pharmaceutical compositions or vaccines for preventing or
CC   aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC   dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 17 BP; 1 A; 4 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2312 GCAATTTGTTGCTGCTT 2328
              || | ||||||||||||
Db          1 GCCAGTTGTTGCTGCTT 17


RESULT 4453
ABS74686/c
ID   ABS74686 standard; DNA; 17 BP.
XX
AC   ABS74686;
XX
DT   24-DEC-2002  (first entry)
XX
DE   Human PAPP-Ea associated 17-mer SEQ ID 212.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
PA   (SHAN/) SHANNON M E.
XX
PI   Gu Y,  Shannon ME;
XX
DR   WPI; 2002-697817/75.
XX
PT   New isolated nucleic acid encoding an isoform of human pregnancy
PT   associated plasma protein E, for preventing or aborting pregnancy.
XX
PS   Example 2; Page 103; 353pp; English.
XX
CC   This invention describes a novel isolated nucleic acid that encodes one
CC   of three new isoforms of human pregnancy associated plasma protein E,
CC   hPAPP-E. The products of the invention have abortive and contraceptive
CC   activity and can be used for gene therapy or in a vaccine. The nucleic
CC   acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC   used in pharmaceutical compositions or vaccines for preventing or
CC   aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC   dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 17 BP; 8 A; 3 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2312 GCAATTTGTTGCTGCTT 2328
              |||||||| |||| |||
Db         17 GCAATTTGATGCTTCTT 1


RESULT 4454
ABS76192
ID   ABS76192 standard; DNA; 17 BP.
XX
AC   ABS76192;
XX
DT   27-DEC-2002  (first entry)
XX
DE   Human PAPP-Eb associated 17-mer SEQ ID 1718.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
```

KW dysgenetic pregnancy; primer; ss.
XX
OS Homo sapiens.
XX
PN US2002102252-A1.
XX
PD 01-AUG-2002.
XX
PF 06-APR-2001; 2001US-00827998.
XX
PR 26-MAY-2000; 2000US-0207456P.
XX
PA (GUYY/) GU Y.
PA (SHAN/) SHANNON M E.
XX
PI Gu Y, Shannon ME;
XX
DR WPI; 2002-697817/75.
XX
PT New isolated nucleic acid encoding an isoform of human pregnancy
PT associated plasma protein E, for preventing or aborting pregnancy.
XX
PS Example 2; Page 301; 353pp; English.
XX
CC This invention describes a novel isolated nucleic acid that encodes one
CC of three new isoforms of human pregnancy associated plasma protein E,
CC hPAPP-E. The products of the invention have abortive and contraceptive
CC activity and can be used for gene therapy or in a vaccine. The nucleic
CC acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC used in pharmaceutical compositions or vaccines for preventing or
CC aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC antibodies can be used to assess the expression levels of PAPP-E isoform
CC proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC antenatally. This sequence represents an oligomer used in scanning the
CC human PAPP-E genes described in the disclosure of the invention
XX
SQ Sequence 17 BP; 2 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2311 AGCAATTTGTTGCTGCT 2327
              ||| | ||||||||||
Db          1 AGCCAGTTGTTGCTGCT 17
```

RESULT 4455
ABL31395
ID ABL31395 standard; DNA; 17 BP.
XX
AC ABL31395;
XX
DT 21-MAR-2002 (first entry)
XX
DE Human HLA genotyping oligonucleotide SEQ ID NO 884.
XX
KW Human; human leukocyte antigen; HLA; genotype; polymorphism;
KW immunogenetic; transplantation; genetic disease; ss.
XX
OS Homo sapiens.
XX
PN WO200192572-A1.
XX
PD 06-DEC-2001.
XX
PF 01-JUN-2001; 2001WO-JP004662.
XX
PR 01-JUN-2000; 2000JP-00164798.
XX
PA (NISN) NISSHINBO IND INC.
PA (SYST-) SYSTEM RES INC.
XX
PI Inoko H, Kagiya T, Ichihara T, Matsumura Y, Moriya S, Nishida M;
XX
DR WPI; 2002-122074/16.
XX
PT Human leukocyte antigen (HLA) typing, useful for judging HLA genotypes of
PT individuals e.g. by determining immunogenetic differences when
PT transplanting between them.
XX
PS Claim 10; Page 261; 345pp; Japanese.
XX
CC The invention relates to a typing kit for judging human leukocyte antigen
CC (HLA) genotype of a sample by hybridising a substrate on which 10-24 base
CC oligonucleotides (ABL30512-ABL31809) originating in the sequences of
CC genes e.g. belonging to HLA class I antigens on human genome and
CC containing gene polymorphisms as alloantigens have been immobilised as
CC primers for amplification of cleaved nucleic acids relating to gene
CC polymorphisms. The method is useful for judging HLA genotypes of
CC individuals by determining immunogenetic differences before transplanting
CC between them, providing genetic information to decide compatibility of
CC organ and tissue for transplantation e.g. of bone marrow, kidney, liver,
CC pancreas, Langerhans islet in pancreas and cornea, susceptibility
CC diagnosis of genetic diseases and identifying individuals
XX
SQ Sequence 17 BP; 7 A; 2 C; 7 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1004 GAGAAGTTGGACAAGAT 1020
              ||||||  |||||||||
Db          1 GAGAAGCGGGACAAGAT 17
```

RESULT 4456
ABL31540/c
ID ABL31540 standard; DNA; 17 BP.
XX
AC ABL31540;
XX
DT 21-MAR-2002 (first entry)
XX
DE Human HLA genotyping oligonucleotide SEQ ID NO 1029.
XX
KW Human; human leukocyte antigen; HLA; genotype; polymorphism;
KW immunogenetic; transplantation; genetic disease; ss.
XX
OS Homo sapiens.
XX
PN WO200192572-A1.
XX
PD 06-DEC-2001.
XX
PF 01-JUN-2001; 2001WO-JP004662.
XX
PR 01-JUN-2000; 2000JP-00164798.
XX
PA (NISN) NISSHINBO IND INC.
PA (SYST-) SYSTEM RES INC.
XX
PI Inoko H, Kagiya T, Ichihara T, Matsumura Y, Moriya S, Nishida M;
XX
DR WPI; 2002-122074/16.
XX
PT Human leukocyte antigen (HLA) typing, useful for judging HLA genotypes of
PT individuals e.g. by determining immunogenetic differences when
PT transplanting between them.
XX
PS Claim 10; Page 288; 345pp; Japanese.
XX
CC The invention relates to a typing kit for judging human leukocyte antigen

```
CC   (HLA) genotype of a sample by hybridising a substrate on which 10-24 base
CC   oligonucleotides (ABL30512-ABL31809) originating in the sequences of
CC   genes e.g. belonging to HLA class I antigens on human genome and
CC   containing gene polymorphisms as alloantigens have been immobilised as
CC   primers for amplification of cleaved nucleic acids relating to gene
CC   polymorphisms. The method is useful for judging HLA genotypes of
CC   individuals by determining immunogenetic differences before transplanting
CC   between them, providing genetic information to decide compatibility of
CC   organ and tissue for transplantation e.g. of bone marrow, kidney, liver,
CC   pancreas, Langerhans islet in pancreas and cornea, susceptibility
CC   diagnosis of genetic diseases and identifying individuals
XX
SQ   Sequence 17 BP; 4 A; 6 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1376 GCCATCTGTGCCGCGGT 1392
              ||||| | |||||||||
Db         17 GCCATGTCTGCCGCGGT 1


RESULT 4457
ABL31783/c
ID   ABL31783 standard; DNA; 17 BP.
XX
AC   ABL31783;
XX
DT   21-MAR-2002  (first entry)
XX
DE   Human HLA genotyping oligonucleotide SEQ ID NO 1272.
XX
KW   Human; human leukocyte antigen; HLA; genotype; polymorphism;
KW   immunogenetic; transplantation; genetic disease; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192572-A1.
XX
PD   06-DEC-2001.
XX
PF   01-JUN-2001; 2001WO-JP004662.
XX
PR   01-JUN-2000; 2000JP-00164798.
XX
PA   (NISN ) NISSHINBO IND INC.
PA   (SYST-) SYSTEM RES INC.
XX
PI   Inoko H,  Kagiya T,  Ichihara T,  Matsumura Y,  Moriya S,  Nishida M;
XX
DR   WPI; 2002-122074/16.
XX
PT   Human leukocyte antigen (HLA) typing, useful for judging HLA genotypes of
PT   individuals e.g. by determining immunogenetic differences when
PT   transplanting between them.
XX
PS   Claim 10; Page 334; 345pp; Japanese.
XX
CC   The invention relates to a typing kit for judging human leukocyte antigen
CC   (HLA) genotype of a sample by hybridising a substrate on which 10-24 base
CC   oligonucleotides (ABL30512-ABL31809) originating in the sequences of
CC   genes e.g. belonging to HLA class I antigens on human genome and
CC   containing gene polymorphisms as alloantigens have been immobilised as
CC   primers for amplification of cleaved nucleic acids relating to gene
CC   polymorphisms. The method is useful for judging HLA genotypes of
CC   individuals by determining immunogenetic differences before transplanting
CC   between them, providing genetic information to decide compatibility of
CC   organ and tissue for transplantation e.g. of bone marrow, kidney, liver,
CC   pancreas, Langerhans islet in pancreas and cornea, susceptibility
CC   diagnosis of genetic diseases and identifying individuals
XX
SQ   Sequence 17 BP; 3 A; 7 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1382 TGTGCCGCGGTGTCTGC 1398
              || |||||||||| ||
Db         17 TGAGCCGCGGTGTCCGC 1


RESULT 4458
ACC52674/c
ID   ACC52674 standard; DNA; 17 BP.
XX
AC   ACC52674;
XX
DT   27-JUN-2003  (first entry)
XX
DE   Human tumour suppressor sequence #1441.
XX
KW   ss; tumour suppressor; antitumour; cytostatic; tumour suppression;
KW   tumour regression; apoptosis; virus resistance; diagnosis;
KW   cellular degeneration.
XX
OS   Homo sapiens.
XX
PN   FR2826373-A1.
XX
PD   27-DEC-2002.
XX
PF   20-JUN-2001; 2001FR-00008139.
XX
PR   20-JUN-2001; 2001FR-00008139.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI   Tuijnder M,  Telerman A,  Amson R;
XX
DR   WPI; 2003-250498/25.
XX
PT   New nucleic acid sequences associated with tumor suppression, regression,
PT   apoptosis or virus resistance are useful to diagnose and treat viral
PT   disease, development of tumor cells and cell degeneration.
XX
PS   Claim 1; Page 373; 798pp; French.
XX
CC   This sequence represents an isolated nucleic acid sequence associated
CC   with tumour suppression or regression, apoptosis or virus resistance. The
CC   invention relates to these sequences or sequences having at least 80%
CC   identity to them, and polypeptides encoded by the sequences or
CC   polypeptides having 80% identity to the polypeptide sequences. The
CC   invention is used to diagnose or treat viral disease or disease
CC   characterized by development of tumour cells or cellular degeneration
XX
SQ   Sequence 17 BP; 6 A; 5 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2447 TTTTGAGACATGGGATC 2463
              |||| ||| ||||||||
Db         17 TTTTAAGAGATGGGATC 1


RESULT 4459
ACC52259/c
ID   ACC52259 standard; DNA; 17 BP.
XX
AC   ACC52259;
XX
DT   27-JUN-2003  (first entry)
XX
```

```
DE   Human tumour suppressor sequence #1026.
XX
KW   ss; tumour suppressor; antitumour; cytostatic; tumour suppression;
KW   tumour regression; apoptosis; virus resistance; diagnosis;
KW   cellular degeneration.
XX
OS   Homo sapiens.
XX
PN   FR2826373-A1.
XX
PD   27-DEC-2002.
XX
PF   20-JUN-2001; 2001FR-00008139.
XX
PR   20-JUN-2001; 2001FR-00008139.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI   Tuijnder M,  Telerman A,  Amson R;
XX
DR   WPI; 2003-250498/25.
XX
PT   New nucleic acid sequences associated with tumor suppression, regression,
PT   apoptosis or virus resistance are useful to diagnose and treat viral
PT   disease, development of tumor cells and cell degeneration.
XX
PS   Claim 1; Page 277; 798pp; French.
XX
CC   This sequence represents an isolated nucleic acid sequence associated
CC   with tumour suppression or regression, apoptosis or virus resistance. The
CC   invention relates to these sequences or sequences having at least 80%
CC   identity to them, and polypeptides encoded by the sequences or
CC   polypeptides having 80% identity to the polypeptide sequences. The
CC   invention is used to diagnose or treat viral disease or disease
CC   characterized by development of tumour cells or cellular degeneration
XX
SQ   Sequence 17 BP; 4 A; 5 C; 1 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1983 AAAGAAAAGTGTGTATC 1999
              ||||||| ||||| |||
Db         17 AAAGAAATGTGTGGATC 1


RESULT 4460
ACC53844
ID   ACC53844 standard; DNA; 17 BP.
XX
AC   ACC53844;
XX
DT   27-JUN-2003  (first entry)
XX
DE   Human tumour suppressor sequence #2611.
XX
KW   ss; tumour suppressor; antitumour; cytostatic; tumour suppression;
KW   tumour regression; apoptosis; virus resistance; diagnosis;
KW   cellular degeneration.
XX
OS   Homo sapiens.
XX
PN   FR2826373-A1.
XX
PD   27-DEC-2002.
XX
PF   20-JUN-2001; 2001FR-00008139.
XX
PR   20-JUN-2001; 2001FR-00008139.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI   Tuijnder M,  Telerman A,  Amson R;
XX
DR   WPI; 2003-250498/25.
XX
PT   New nucleic acid sequences associated with tumor suppression, regression,
PT   apoptosis or virus resistance are useful to diagnose and treat viral
PT   disease, development of tumor cells and cell degeneration.
XX
PS   Claim 1; Page 643; 798pp; French.
XX
CC   This sequence represents an isolated nucleic acid sequence associated
CC   with tumour suppression or regression, apoptosis or virus resistance. The
CC   invention relates to these sequences or sequences having at least 80%
CC   identity to them, and polypeptides encoded by the sequences or
CC   polypeptides having 80% identity to the polypeptide sequences. The
CC   invention is used to diagnose or treat viral disease or disease
CC   characterized by development of tumour cells or cellular degeneration
XX
SQ   Sequence 17 BP; 12 A; 1 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2780 GAATTGAAAAAAAAAAA 2796
              ||  |||||||||||||
Db          1 GATCTGAAAAAAAAAAA 17


RESULT 4461
ACA99706
ID   ACA99706 standard; DNA; 17 BP.
XX
AC   ACA99706;
XX
DT   28-JUL-2003  (first entry)
XX
DE   G-protein coupled receptor GPCR-A-1 analysis oligonucleotide #199.
XX
KW   Human; G-protein coupled receptor; GPCR-A-1; cancer; tumour;
KW   G-Protein-Agonist; G-Protein-Antagonist; gene therapy; cytostatic; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031621-A2.
XX
PD   17-APR-2003.
XX
PF   11-OCT-2002; 2002WO-US032599.
XX
PR   12-OCT-2001; 2001US-0329000P.
XX
PA   (AMSH ) AMERSHAM BIOSCIENCES SV CORP.
XX
PI   Zhang J;
XX
DR   WPI; 2003-381720/36.
XX
PT   New GPCR-A-1 nucleic acid and polypeptide, useful for diagnosing,
PT   investigating and/or treating disorders associated with aberrant
PT   expression or activity of GPCR-A-1, such as tumors and cancers.
XX
PS   Example 2; SEQ ID NO 223; 156pp; English.
XX
CC   The invention describes an isolated nucleic acid encoding a G protein
CC   coupled receptor (GPCR), mutations of which cause cancer, comprising a
CC   2225 or 1921 base pair sequence, or their degenerate variants, encoding a
CC   409 residue amino acid sequence, all given in the specification, with or
CC   without conservative amino acid substitutions, or complements of the
CC   sequence of them. The encoding nucleic acid is not more than 100 kbase in
CC   length. The methods and compositions of the present invention are useful
CC   for diagnosing, investigating and/or treating disorders associated with
CC   aberrant expression or activity of GPCR-A-1, such as tumours and cancers.
```

```
CC   This sequence represents an oligonucleotide used to analyse the gene
CC   encoding human G-protein coupled receptor GPCR-A-1
XX
SQ   Sequence 17 BP; 2 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2108 GGCCTTCTGGTTTTAGG 2124
              | |||||||||  |||||
Db          1 GACCTTCTGGTCTTAGG 17


RESULT 4462
ACA99704
ID   ACA99704 standard; DNA; 17 BP.
XX
AC   ACA99704;
XX
DT   28-JUL-2003  (first entry)
XX
DE   G-protein coupled receptor GPCR-A-1 analysis oligonucleotide #197.
XX
KW   Human; G-protein coupled receptor; GPCR-A-1; cancer; tumour;
KW   G-Protein-Agonist; G-Protein-Antagonist; gene therapy; cytostatic; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031621-A2.
XX
PD   17-APR-2003.
XX
PF   11-OCT-2002; 2002WO-US032599.
XX
PR   12-OCT-2001; 2001US-0329000P.
XX
PA   (AMSH ) AMERSHAM BIOSCIENCES SV CORP.
XX
PI   Zhang J;
XX
DR   WPI; 2003-381720/36.
XX
PT   New GPCR-A-1 nucleic acid and polypeptide, useful for diagnosing,
PT   investigating and/or treating disorders associated with aberrant
PT   expression or activity of GPCR-A-1, such as tumors and cancers.
XX
PS   Example 2; SEQ ID NO 221; 156pp; English.
XX
CC   The invention describes an isolated nucleic acid encoding a G protein
CC   coupled receptor (GPCR), mutations of which cause cancer, comprising a
CC   2225 or 1921 base pair sequence, or their degenerate variants, encoding a
CC   409 residue amino acid sequence, all given in the specification, with or
CC   without conservative amino acid substitutions, or complements of the
CC   sequence of them. The encoding nucleic acid is not more than 100 kbase in
CC   length. The methods and compositions of the present invention are useful
CC   for diagnosing, investigating and/or treating disorders associated with
CC   aberrant expression or activity of GPCR-A-1, such as tumours and cancers.
CC   This sequence represents an oligonucleotide used to analyse the gene
CC   encoding human G-protein coupled receptor GPCR-A-1
XX
SQ   Sequence 17 BP; 2 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2106 GGGGCCTTCTGGTTTTA 2122
              ||| |||||||||  |||
Db          1 GGGACCTTCTGGTCTTA 17


RESULT 4463
ACA99703
ID   ACA99703 standard; DNA; 17 BP.
XX
AC   ACA99703;
XX
DT   28-JUL-2003  (first entry)
XX
DE   G-protein coupled receptor GPCR-A-1 analysis oligonucleotide #196.
XX
KW   Human; G-protein coupled receptor; GPCR-A-1; cancer; tumour;
KW   G-Protein-Agonist; G-Protein-Antagonist; gene therapy; cytostatic; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031621-A2.
XX
PD   17-APR-2003.
XX
PF   11-OCT-2002; 2002WO-US032599.
XX
PR   12-OCT-2001; 2001US-0329000P.
XX
PA   (AMSH ) AMERSHAM BIOSCIENCES SV CORP.
XX
PI   Zhang J;
XX
DR   WPI; 2003-381720/36.
XX
PT   New GPCR-A-1 nucleic acid and polypeptide, useful for diagnosing,
PT   investigating and/or treating disorders associated with aberrant
PT   expression or activity of GPCR-A-1, such as tumors and cancers.
XX
PS   Example 2; SEQ ID NO 220; 156pp; English.
XX
CC   The invention describes an isolated nucleic acid encoding a G protein
CC   coupled receptor (GPCR), mutations of which cause cancer, comprising a
CC   2225 or 1921 base pair sequence, or their degenerate variants, encoding a
CC   409 residue amino acid sequence, all given in the specification, with or
CC   without conservative amino acid substitutions, or complements of the
CC   sequence of them. The encoding nucleic acid is not more than 100 kbase in
CC   length. The methods and compositions of the present invention are useful
CC   for diagnosing, investigating and/or treating disorders associated with
CC   aberrant expression or activity of GPCR-A-1, such as tumours and cancers.
CC   This sequence represents an oligonucleotide used to analyse the gene
CC   encoding human G-protein coupled receptor GPCR-A-1
XX
SQ   Sequence 17 BP; 1 A; 4 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2105 GGGGGCCTTCTGGTTTT 2121
              |||| |||||||||  ||
Db          1 GGGGACCTTCTGGTCTT 17


RESULT 4464
ACA99705
ID   ACA99705 standard; DNA; 17 BP.
XX
AC   ACA99705;
XX
DT   28-JUL-2003  (first entry)
XX
DE   G-protein coupled receptor GPCR-A-1 analysis oligonucleotide #198.
XX
KW   Human; G-protein coupled receptor; GPCR-A-1; cancer; tumour;
KW   G-Protein-Agonist; G-Protein-Antagonist; gene therapy; cytostatic; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031621-A2.
```

XX
PD 17-APR-2003.
XX
PF 11-OCT-2002; 2002WO-US032599.
XX
PR 12-OCT-2001; 2001US-0329000P.
XX
PA (AMSH) AMERSHAM BIOSCIENCES SV CORP.
XX
PI Zhang J;
XX
DR WPI; 2003-381720/36.
XX
PT New GPCR-A-1 nucleic acid and polypeptide, useful for diagnosing,
PT investigating and/or treating disorders associated with aberrant
PT expression or activity of GPCR-A-1, such as tumors and cancers.
XX
PS Example 2; SEQ ID NO 222; 156pp; English.
XX
CC The invention describes an isolated nucleic acid encoding a G protein
CC coupled receptor (GPCR), mutations of which cause cancer, comprising a
CC 2225 or 1921 base pair sequence, or their degenerate variants, encoding a
CC 409 residue amino acid sequence, all given in the specification, with or
CC without conservative amino acid substitutions, or complements of the
CC sequence of them. The encoding nucleic acid is not more than 100 kbase in
CC length. The methods and compositions of the present invention are useful
CC for diagnosing, investigating and/or treating disorders associated with
CC aberrant expression or activity of GPCR-A-1, such as tumours and cancers.
CC This sequence represents an oligonucleotide used to analyse the gene
CC encoding human G-protein coupled receptor GPCR-A-1
XX
SQ Sequence 17 BP; 2 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2107 GGGCCTTCTGGTTTTAG 2123
|| ||||||||| ||||
Db 1 GGACCTTCTGGTCTTAG 17

RESULT 4465
ABT35213/c
ID ABT35213 standard; DNA; 17 BP.
XX
AC ABT35213;
XX
DT 12-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 850.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 132; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that
CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 4 A; 1 C; 4 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1437 ACAAATCCTACATGAAC 1453
|||||| |||||||| |
Db 17 ACAAATACTACATGATC 1

RESULT 4466
ABT35699/c
ID ABT35699 standard; DNA; 17 BP.
XX
AC ABT35699;
XX
DT 12-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 1336.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies

PT and transfected cells.
XX
PS Disclosure; Page 189; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that
CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 3 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 202 AGAGGACTGCGAGGATC 218
||||||||| |||||
Db 17 AGAGGACTGCTCGGATC 1

RESULT 4467
ABT39123/c
ID ABT39123 standard; DNA; 17 BP.
XX
AC ABT39123;
XX
DT 12-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 4760.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 590; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that
CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 6 A; 5 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2447 TTTTGAGACATGGGATC 2463
|||| ||| ||||||||
Db 17 TTTTAAGAGATGGGATC 1

RESULT 4468
ABT39231
ID ABT39231 standard; DNA; 17 BP.
XX
AC ABT39231;
XX
DT 12-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 4868.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 603; 720pp; French.
XX

CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that
CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 7 A; 2 C; 2 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2460 GATCCAATTTTAATATT 2476
              ||||||| ||||| |||
Db          1 GATCCAAGTTTAAAATT 17
```

RESULT 4469
ABT40168
ID ABT40168 standard; DNA; 17 BP.
XX
AC ABT40168;
XX
DT 13-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 5805.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 712; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that
CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 5 A; 3 C; 1 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2460 GATCCAATTTTAATATT 2476
              ||||||  |||||||||
Db          1 GATCCATCTTTAATATT 17
```

RESULT 4470
ABT40201
ID ABT40201 standard; DNA; 17 BP.
XX
AC ABT40201;
XX
DT 13-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 5838.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004208.
XX
PR 17-SEP-2001; 2001FR-00011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 716; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15 consecutive
CC nucleotides from the 17 mer sequence, a sequence with, after optimal
CC alignment, at least 80 % identity to the 17 mer sequence, a sequence that

CC hybridizes to them under highly stringent conditions, or the complement
CC of any of them, or the corresponding RNA. The novel isolated nucleic
CC acids of the invention are useful as probes and primers for detecting,
CC identifying, quantifying and/or amplifying a nucleic acid, e.g. as one
CC component of a gene chip, in vitro as (anti)sense reagents, and for
CC production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention
XX
SQ Sequence 17 BP; 4 A; 5 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1256 GAACTTCTCAGCCAAGA 1272
              || |||||||||| ||
Db          1 GATCTTCTCAGCCAGGA 17
```

RESULT 4471
ADA99204
ID ADA99204 standard; DNA; 17 BP.
XX
AC ADA99204;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human MDZ3 scanning oligonucleotide SEQ ID 193.
XX
KW Cytostatic; immunostimulant; gene therapy; vaccine; human;
KW zinc finger protein; MDZ3; MDZ4; MDZ7; MDZ12; chromosome 7q22.1;
KW chromosome 6p21.3-22.2; chromosome 16p11.2; chromosome 15q26.1; cancer;
KW developmental disorder; ss.
XX
OS Homo sapiens.
XX
PN EP1281758-A2.
XX
PD 05-FEB-2003.
XX
PF 30-JUL-2002; 2002EP-00016874.
XX
PR 02-AUG-2001; 2001US-00922181.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Shannon M, Gu Y, Nguyen C;
XX
DR WPI; 2003-423107/40.
XX
PT New zinc finger-containing proteins and nucleic acids, useful in
PT manufacturing a medicament for treating or preventing a disorder
PT associated with decreased or increased expression or activity of MDZ3,
PT MDZ4, MDZ7 or MDZ12, e.g. cancer.
XX
PS Example 8; SEQ ID NO 193; 103pp; English.
XX
CC The present invention relates to novel human zinc finger-containing
CC proteins and their coding sequences: MDZ3, MDZ4, MDZ7, MDZ12. MDZ3 is
CC encoded at chromosome 7q22.1, MDZ4 is encoded at chromosome 6p21.3-22.2,
CC MDZ7 is encoded at chromosome 16p11.2 and MDZ12 is encoded at chromosome
CC 15q26.1. The MDZ3, MDZ4, MDZ7, and MDZ12 sequences are useful in therapy,
CC or in manufacturing a medicament for treating or preventing a disorder
CC associated with decreased or increased expression or activity of MDZ3,
CC MDZ4, MDZ7, or MDZ12, e.g. cancer or developmental disorders. The nucleic
CC acids and proteins are also useful for diagnosing or monitoring a disease
CC caused by altered expression of MDZ3, MDZ4, MDZ7, or MDZ12. The nucleic
CC acids can also be used as probes to detect and characterize gross
CC alterations in MDZ3, MDZ4, MDZ7, or MDZ12 genetic locus. The probes are
CC useful in constructing microarrays for measuring gene expression. The
CC proteins are useful as therapeutic agents for gene therapy or as
CC vaccines. The present sequence was used to illustrate the invention.
XX
SQ Sequence 17 BP; 7 A; 1 C; 6 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1491 TGGAGAAAATGGAGAAA 1507
              ||| |||| ||||||||
Db          1 TGGTGAAACTGGAGAAA 17
```

RESULT 4472
ADA99789
ID ADA99789 standard; DNA; 17 BP.
XX
AC ADA99789;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human MDZ3 scanning oligonucleotide SEQ ID 778.
XX
KW Cytostatic; immunostimulant; gene therapy; vaccine; human;
KW zinc finger protein; MDZ3; MDZ4; MDZ7; MDZ12; chromosome 7q22.1;
KW chromosome 6p21.3-22.2; chromosome 16p11.2; chromosome 15q26.1; cancer;
KW developmental disorder; ss.
XX
OS Homo sapiens.
XX
PN EP1281758-A2.
XX
PD 05-FEB-2003.
XX
PF 30-JUL-2002; 2002EP-00016874.
XX
PR 02-AUG-2001; 2001US-00922181.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Shannon M, Gu Y, Nguyen C;
XX
DR WPI; 2003-423107/40.
XX
PT New zinc finger-containing proteins and nucleic acids, useful in
PT manufacturing a medicament for treating or preventing a disorder
PT associated with decreased or increased expression or activity of MDZ3,
PT MDZ4, MDZ7 or MDZ12, e.g. cancer.
XX
PS Example 8; SEQ ID NO 778; 103pp; English.
XX
CC The present invention relates to novel human zinc finger-containing
CC proteins and their coding sequences: MDZ3, MDZ4, MDZ7, MDZ12. MDZ3 is
CC encoded at chromosome 7q22.1, MDZ4 is encoded at chromosome 6p21.3-22.2,
CC MDZ7 is encoded at chromosome 16p11.2 and MDZ12 is encoded at chromosome
CC 15q26.1. The MDZ3, MDZ4, MDZ7, and MDZ12 sequences are useful in therapy,
CC or in manufacturing a medicament for treating or preventing a disorder
CC associated with decreased or increased expression or activity of MDZ3,
CC MDZ4, MDZ7, or MDZ12, e.g. cancer or developmental disorders. The nucleic
CC acids and proteins are also useful for diagnosing or monitoring a disease
CC caused by altered expression of MDZ3, MDZ4, MDZ7, or MDZ12. The nucleic
CC acids can also be used as probes to detect and characterize gross
CC alterations in MDZ3, MDZ4, MDZ7, or MDZ12 genetic locus. The probes are
CC useful in constructing microarrays for measuring gene expression. The

```
CC   proteins are useful as therapeutic agents for gene therapy or as
CC   vaccines. The present sequence was used to illustrate the invention.
XX
SQ   Sequence 17 BP; 5 A; 2 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1194 ATGAGATGGCAGCTAGG 1210
              | |||||||||||| ||
Db          1 AAGAGATGGCAGCTGGG 17


RESULT 4473
ABZ65528
ID   ABZ65528 standard; RNA; 17 BP.
XX
AC   ABZ65528;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #985.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 152; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 1 A; 0 C; 2 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   5.9%;  Pred. No. 3.2e+03;
  Matches    1;  Conservative   14;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2171 TTTTTTTTTTTTTTTA 2187
              ::: :::: :::::::|
Db          1 UUUGUUUUGUUUUUUA 17


RESULT 4474
ABZ65527
ID   ABZ65527 standard; RNA; 17 BP.
XX
AC   ABZ65527;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #984.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 152; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 0 A; 1 C; 2 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   5.9%;  Pred. No. 3.2e+03;
  Matches    1;  Conservative   14;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2165 CTTTTTTTTTTTTTTT 2181
              |::::::: :::: :::
Db          1 CUUUUUUUGUUUUGUUU 17


RESULT 4475
ABZ61926
ID   ABZ61926 standard; RNA; 17 BP.
XX
AC   ABZ61926;
XX
DT   21-MAR-2003  (first entry)
XX
```

```
DE   Human H-Ras DNAzyme target #717.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 58; Page 124; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 1 A; 10 C; 2 G; 0 T; 4 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   70.6%;  Pred. No. 3.2e+03;
  Matches   12;  Conservative    3;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        608 CTGCTGCTGCCCCACGC 624
              |:||: |:||||||| |
Db          1 CUGCUCCUGCCCCACUC 17


RESULT 4476
ABZ61300
ID   ABZ61300 standard; RNA; 17 BP.
XX
AC   ABZ61300;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human H-Ras DNAzyme target #91.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 58; Page 112; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 2 A; 8 C; 6 G; 0 T; 1 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 3.2e+03;
  Matches   14;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1293 GCAGGCTCGCCCCAGTC 1309
              |||||| ||||| ||:|
Db          1 GCAGGCCCGCCCGAGUC 17


RESULT 4477
ABZ61558
ID   ABZ61558 standard; RNA; 17 BP.
XX
AC   ABZ61558;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human H-Ras DNAzyme target #349.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
```

DR WPI; 2003-140484/13.
XX
PT Novel short interfering RNA and enzymatic nucleic acid useful for
PT treating cancer, modulates the expression of a nucleic acid encoding
PT HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS Claim 58; Page 117; 185pp; English.
XX
CC The invention relates to a novel short interfering RNA (siRNA) nucleic
CC acid molecule or an enzymatic nucleic acid molecule, that modulates
CC expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC rheumatic activity. The nucleic acid molecules are useful for reducing
CC HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC also useful for treating breast, ovarian, colorectal, lung, prostate,
CC bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC ribozymes of the invention
XX
SQ Sequence 17 BP; 2 A; 9 C; 4 G; 0 T; 2 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 76.5%; Pred. No. 3.2e+03;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 353 CCCTACCAGCAGCTGGC 369
||| | |||||||| | |
Db 1 CCCUGCCAGCAGCUGCC 17

RESULT 4478
ABZ61326/c
ID ABZ61326 standard; RNA; 17 BP.
XX
AC ABZ61326;
XX
DT 21-MAR-2003 (first entry)
XX
DE Human H-Ras DNAzyme target #117.
XX
KW Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW anti-rheumatic; cancer; AIDS; ss.
XX
OS Homo sapiens.
XX
PN WO200297114-A2.
XX
PD 05-DEC-2002.
XX
PF 29-MAY-2002; 2002WO-US016840.
XX
PR 29-MAY-2001; 2001US-0294140P.
PR 06-JUN-2001; 2001US-0296249P.
PR 10-SEP-2001; 2001US-0318471P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J;
XX
DR WPI; 2003-140484/13.
XX
PT Novel short interfering RNA and enzymatic nucleic acid useful for
PT treating cancer, modulates the expression of a nucleic acid encoding
PT HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS Claim 58; Page 113; 185pp; English.
XX
CC The invention relates to a novel short interfering RNA (siRNA) nucleic
CC acid molecule or an enzymatic nucleic acid molecule, that modulates
CC expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC rheumatic activity. The nucleic acid molecules are useful for reducing
CC HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC also useful for treating breast, ovarian, colorectal, lung, prostate,
CC bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC ribozymes of the invention
XX
SQ Sequence 17 BP; 0 A; 14 C; 3 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 47 GCGCGCGGCGGGGGCGG 63
| ||| ||||||||||
Db 17 GGGCGGGGCGGGGGCGG 1

RESULT 4479
ACD57046/c
ID ACD57046 standard; RNA; 17 BP.
XX
AC ACD57046;
XX
DT 23-SEP-2003 (first entry)
XX
DE HCV DNAzyme substrate sequence #136.
XX
KW Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW RNA stability; RNA expression; RNA synthesis; antisense;
KW enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW HBV reverse transcriptase; Enhancer I region; viral replication;
KW degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW virucide; antiinflammatory; substrate; ss.
XX
OS Hepatitis C virus.
XX
PN WO200281494-A1.
XX
PD 17-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-US009187.
XX
PR 26-MAR-2001; 2001US-00817879.
PR 08-JUN-2001; 2001US-00877478.
PR 08-JUN-2001; 2001US-0296876P.
PR 24-OCT-2001; 2001US-0335059P.
PR 05-DEC-2001; 2001US-0337055P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MACE/) MACEJAK D.
PA (MCSW/) MCSWIGGEN J.
PA (MORR/) MORRISSEY D.
PA (PAVC/) PAVCO P.
PA (LEEP/) LEE P.
PA (DRAP/) DRAPER K.
PA (ROBE/) ROBERTS E.
XX
PI Blatt L, Macejak D, Mcswiggen J, Morrissey D, Pavco P, Lee P;
PI Draper K, Roberts E;
XX
DR WPI; 2003-229207/22.
XX
PT Novel compound useful for treating cirrhosis, liver failure,
PT hepatocellular carcinoma, or condition associated with hepatitis C virus
PT infection.
XX

```
PS   Claim 1; Page 236; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 4 A; 3 C; 6 G; 0 T; 4 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1420 AGCCCTGATTGTCATAG 1436
              |||||| |||| |||||
Db         17 AGCCCTCATTGCCATAG 1


RESULT 4480
ACD56943
ID   ACD56943 standard; RNA; 17 BP.
XX
AC   ACD56943;
XX
DT   23-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #89.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 235; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 4 A; 9 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        440 CAGCCGGCGCCCACAGG 456
              || ||| ||||||||||
Db          1 CAACCGCCGCCCACAGG 17


RESULT 4481
ACD65727/c
ID   ACD65727 standard; RNA; 17 BP.
XX
AC   ACD65727;
XX
DT   30-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #2190.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
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PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 314; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 0 A; 2 C; 10 G; 0 T; 5 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        438 ACCAGCCGGCGCCCACA 454
              |||| ||| ||||||||
Db         17 ACCAACCGCCGCCCACA 1


RESULT 4482
ACD65623
ID   ACD65623 standard; RNA; 17 BP.
XX
AC   ACD65623;
XX
DT   30-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #2142.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 313; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 5 A; 6 C; 2 G; 0 T; 4 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   64.7%;  Pred. No. 3.2e+03;
  Matches   11;  Conservative    4;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1419 AAGCCCTGATTGTCATA 1435
              |||||| |::| ||:|
Db          1 AAGCCCUCAUUGCCAUA 17


RESULT 4483
ACD56942
ID   ACD56942 standard; RNA; 17 BP.
XX
AC   ACD56942;
XX
DT   23-SEP-2003  (first entry)
XX
```

```
DE   HCV DNAzyme substrate sequence #88.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 235; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 4 A; 11 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        437 CACCAGCCGGCGCCCAC 453
              ||||| ||| |||||||
Db          1 CACCAACCGCCGCCCAC 17


RESULT 4484
ACC67022
ID   ACC67022 standard; DNA; 17 BP.
XX
AC   ACC67022;
XX
DT   01-JUL-2003  (first entry)
XX
DE   Murine oligonucleotide associated with tumour supression, SEQ ID 4269.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine;
KW   tumour suppression; tumour reversion; apoptosis; virus resistance;
KW   viral disease; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; ss.
XX
OS   Mus musculus.
XX
PN   WO20C3025176-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB004210.
XX
PR   17-SEP-2001; 2001FR-00011979.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-333167/31.
XX
PT   New isolated nucleic acid, useful for treating viral diseases associated
PT   with tumors and cell degeneration, also related polypeptides, antibodies
PT   and transfected cells.
XX
PS   Disclosure; Page 530; 738pp; French.
XX
CC   The present invention relates to murine oligonucleotides (ACC62754-
CC   ACC68806), which are associated with tumour suppression, tumour
CC   reversion, apoptosis and virus resistance. The oligonucleotides are
CC   useful as (1) as probes and primers for detecting, identifying,
CC   quantifying and/or amplifying nucleic acid, e.g. as one component of a
CC   gene chip; in vitro as (anti)sense reagents; and (2) for production of
CC   recombinant polypeptides. The oligonucleotides are useful for preparation
CC   of pharmaceuticals for prevention and/or treatment of viral diseases that
CC   are characterised by development of tumours or cell degeneration,
CC   specifically cancer but also Alzheimer's disease and schizophrenia
XX
SQ   Sequence 17 BP; 4 A; 3 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        122 GATCCTGGATTTAACTG 138
              ||||||||||||  ||
Db          1 GATCCTGGATTTACATG 17


RESULT 4485
ACC68550
ID   ACC68550 standard; DNA; 17 BP.
XX
AC   ACC68550;
XX
DT   01-JUL-2003  (first entry)
XX
DE   Murine oligonucleotide associated with tumour supression, SEQ ID 5797.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine;
```

KW tumour suppression; tumour reversion; apoptosis; virus resistance;
KW viral disease; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; ss.
XX
OS Mus musculus.
XX
PN WO2003025176-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004210.
XX
PR 17-SEP-2001; 2001FR-00011979.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-333167/31.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 708; 738pp; French.
XX
CC The present invention relates to murine oligonucleotides (ACC62754-
CC ACC68806), which are associated with tumour suppression, tumour
CC reversion, apoptosis and virus resistance. The oligonucleotides are
CC useful as (1) as probes and primers for detecting, identifying,
CC quantifying and/or amplifying nucleic acid, e.g. as one component of a
CC gene chip; in vitro as (anti)sense reagents; and (2) for production of
CC recombinant polypeptides. The oligonucleotides are useful for preparation
CC of pharmaceuticals for prevention and/or treatment of viral diseases that
CC are characterised by development of tumours or cell degeneration,
CC specifically cancer but also Alzheimer's disease and schizophrenia
XX
SQ Sequence 17 BP; 4 A; 3 C; 3 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2013 GATCAAGTCCTCTGGTA 2029
||||||||||| || ||
Db 1 GATCAAGTCCTTTGTTA 17

RESULT 4486
ACC65305
ID ACC65305 standard; DNA; 17 BP.
XX
AC ACC65305;
XX
DT 01-JUL-2003 (first entry)
XX
DE Murine oligonucleotide associated with tumour supression, SEQ ID 2552.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine;
KW tumour suppression; tumour reversion; apoptosis; virus resistance;
KW viral disease; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; ss.
XX
OS Mus musculus.
XX
PN WO2003025176-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004210.
XX
PR 17-SEP-2001; 2001FR-00011979.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-333167/31.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 329; 738pp; French.
XX
CC The present invention relates to murine oligonucleotides (ACC62754-
CC ACC68806), which are associated with tumour suppression, tumour
CC reversion, apoptosis and virus resistance. The oligonucleotides are
CC useful as (1) as probes and primers for detecting, identifying,
CC quantifying and/or amplifying nucleic acid, e.g. as one component of a
CC gene chip; in vitro as (anti)sense reagents; and (2) for production of
CC recombinant polypeptides. The oligonucleotides are useful for preparation
CC of pharmaceuticals for prevention and/or treatment of viral diseases that
CC are characterised by development of tumours or cell degeneration,
CC specifically cancer but also Alzheimer's disease and schizophrenia
XX
SQ Sequence 17 BP; 4 A; 3 C; 5 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2013 GATCAAGTCCTCTGGTA 2029
||||||||||| ||| |
Db 1 GATCAAGTCCTTTGGGA 17

RESULT 4487
ADB41005
ID ADB41005 standard; DNA; 17 BP.
XX
AC ADB41005;
XX
DT 18-DEC-2003 (revised)
DT 04-DEC-2003 (first entry)
XX
DE Tumour suppression/reversion associated nucleotide #1328.
XX
KW cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
KW primer; probe; tumour suppression; tumour reversion; apoptosis;
KW virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
KW diagnosis.
XX
OS Homo sapiens.
XX
PN WO2003040369-A2.
XX
PD 15-MAY-2003.
XX
PF 17-SEP-2002; 2002WO-IB004219.
XX
PR 17-SEP-2001; 2001FR-00011981.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-441574/41.
XX
PT New nucleic acid encoding human prostate membrane-specific antigen,
PT useful e.g. for treatment of tumors and viral infection, also related
PT polypeptide and antibodies.
XX
PS Disclosure; Page 187; 771pp; French.
XX
CC The invention relates to the isolation of 6327 nucleotide sequences,

CC fragments of at least 15 consecutive nucleotides of these nucleotides, a
CC sequence having at least 80% identity, after optimal alignment, with the
CC nucleotides, a sequence that hybridizes under stringent conditions with
CC the nucleotides, or the complement, or corresponding RNA, of the
CC nucleotides. The nucleotides are used as probes or primers for detecting,
CC identifying, quantifying and/or amplifying nucleic acids, as in vitro
CC sense and antisense sequences, of nucleotides involved in tumour
CC suppression or reversion, apoptosis and or viral resistance, to produce
CC recombinant polypeptides, and to prepare transgenic animals, as
CC experimental models. The nucleotides (also vectors containing them and
CC cells containing the vectors), the encoded polypeptides and antibodies
CC (Ab) against the polypeptide are useful for prevention and/or treatment
CC of viral infections or diseases characterized by development of tumours
CC or cell degeneration (e.g. Alzheimer's disease or schizophrenia).
CC Analysis of the expression of the nucleotides can be used for diagnosis
CC and/or prognosis of these diseases. The nucleotides and polypeptides can
CC also be used to screen for their specific interactive molecules,
CC potentially useful for treating diseases associated with abnormal
CC expression of the nucleotides.
XX
SQ Sequence 17 BP; 6 A; 2 C; 1 G; 8 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2460 GATCCAATTTTAATATT 2476
                ||||  |||||||||  ||
Db          1 GATCAAATTTTAATCTT 17
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RESULT 4488
ADB42684
ID ADB42684 standard; DNA; 17 BP.
XX
AC ADB42684;
XX
DT 18-DEC-2003 (revised)
DT 04-DEC-2003 (first entry)
XX
DE Tumour suppression/reversion associated nucleotide #3007.
XX
KW cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
KW primer; probe; tumour suppression; tumour reversion; apoptosis;
KW virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
KW diagnosis.
XX
OS Homo sapiens.
XX
PN WO2003040369-A2.
XX
PD 15-MAY-2003.
XX
PF 17-SEP-2002; 2002WO-IB004219.
XX
PR 17-SEP-2001; 2001FR-00011981.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-441574/41.
XX
PT New nucleic acid encoding human prostate membrane-specific antigen,
PT useful e.g. for treatment of tumors and viral infection, also related
PT polypeptide and antibodies.
XX
PS Disclosure; Page 383; 771pp; French.
XX
CC The invention relates to the isolation of 6327 nucleotide sequences,
CC fragments of at least 15 consecutive nucleotides of these nucleotides, a
CC sequence having at least 80% identity, after optimal alignment, with the
CC nucleotides, a sequence that hybridizes under stringent conditions with
CC the nucleotides, or the complement, or corresponding RNA, of the
CC nucleotides. The nucleotides are used as probes or primers for detecting,
CC identifying, quantifying and/or amplifying nucleic acids, as in vitro
CC sense and antisense sequences, of nucleotides involved in tumour
CC suppression or reversion, apoptosis and or viral resistance, to produce
CC recombinant polypeptides, and to prepare transgenic animals, as
CC experimental models. The nucleotides (also vectors containing them and
CC cells containing the vectors), the encoded polypeptides and antibodies
CC (Ab) against the polypeptide are useful for prevention and/or treatment
CC of viral infections or diseases characterized by development of tumours
CC or cell degeneration (e.g. Alzheimer's disease or schizophrenia).
CC Analysis of the expression of the nucleotides can be used for diagnosis
CC and/or prognosis of these diseases. The nucleotides and polypeptides can
CC also be used to screen for their specific interactive molecules,
CC potentially useful for treating diseases associated with abnormal
CC expression of the nucleotides.
XX
SQ Sequence 17 BP; 4 A; 7 C; 2 G; 4 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        752 GGTCCCATTTCCATGAC 768
                | ||||||  ||||||||
Db          1 GATCCCATCTCCATGAC 17
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RESULT 4489
ADB44777/c
ID ADB44777 standard; DNA; 17 BP.
XX
AC ADB44777;
XX
DT 18-DEC-2003 (first entry)
XX
DE Tumour suppression/reversion associated nucleotide #5100.
XX
KW cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
KW primer; probe; tumour suppression; tumour reversion; apoptosis;
KW virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
KW diagnosis.
XX
OS Homo sapiens.
XX
PN WO2003040369-A2.
XX
PD 15-MAY-2003.
XX
PF 17-SEP-2002; 2002WO-IB004219.
XX
PR 17-SEP-2001; 2001FR-00011981.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-441574/41.
XX
PT New nucleic acid encoding human prostate membrane-specific antigen,
PT useful e.g. for treatment of tumors and viral infection, also related
PT polypeptide and antibodies.
XX
PS Disclosure; Page 628; 771pp; French.
XX
CC The invention relates to the isolation of 6327 nucleotide sequences,
CC fragments of at least 15 consecutive nucleotides of these nucleotides, a
CC sequence having at least 80% identity, after optimal alignment, with the
CC nucleotides, a sequence that hybridizes under stringent conditions with
CC the nucleotides, or the complement, or corresponding RNA, of the
CC nucleotides. The nucleotides are used as probes or primers for detecting,
CC identifying, quantifying and/or amplifying nucleic acids, as in vitro
CC sense and antisense sequences, of nucleotides involved in tumour

CC suppression or reversion, apoptosis and or viral resistance, to produce
CC recombinant polypeptides, and to prepare transgenic animals, as
CC experimental models. The nucleotides (also vectors containing them and
CC cells containing the vectors), the encoded polypeptides and antibodies
CC (Ab) against the polypeptide are useful for prevention and/or treatment
CC of viral infections or diseases characterized by development of tumours
CC or cell degeneration (e.g. Alzheimer's disease or schizophrenia).
CC Analysis of the expression of the nucleotides can be used for diagnosis
CC and/or prognosis of these diseases. The nucleotides and polypeptides can
CC also be used to screen for their specific interactive molecules,
CC potentially useful for treating diseases associated with abnormal
CC expression of the nucleotides.
XX
SQ Sequence 17 BP; 4 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 202 AGAGGACTGCGAGGATC 218
| | ||||||||||||||
Db 17 ATATGACTGCGAGGATC 1

RESULT 4490
ADB44262/c
ID ADB44262 standard; DNA; 17 BP.
XX
AC ADB44262;
XX
DT 18-DEC-2003 (first entry)
XX
DE Tumour suppression/reversion associated nucleotide #4585.
XX
KW cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
KW primer; probe; tumour suppression; tumour reversion; apoptosis;
KW virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
KW diagnosis.
XX
OS Homo sapiens.
XX
PN WO2003040369-A2.
XX
PD 15-MAY-2003.
XX
PF 17-SEP-2002; 2002WO-IB004219.
XX
PR 17-SEP-2001; 2001FR-00011981.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-441574/41.
XX
PT New nucleic acid encoding human prostate membrane-specific antigen,
PT useful e.g. for treatment of tumors and viral infection, also related
PT polypeptide and antibodies.
XX
PS Disclosure; Page 568; 771pp; French.
XX
CC The invention relates to the isolation of 6327 nucleotide sequences,
CC fragments of at least 15 consecutive nucleotides of these nucleotides, a
CC sequence having at least 80% identity, after optimal alignment, with the
CC nucleotides, a sequence that hybridizes under stringent conditions with
CC the nucleotides, or the complement, or corresponding RNA, of the
CC nucleotides. The nucleotides are used as probes or primers for detecting,
CC identifying, quantifying and/or amplifying nucleic acids, as in vitro
CC sense and antisense sequences, of nucleotides involved in tumour
CC suppression or reversion, apoptosis and or viral resistance, to produce
CC recombinant polypeptides, and to prepare transgenic animals, as
CC experimental models. The nucleotides (also vectors containing them and
CC cells containing the vectors), the encoded polypeptides and antibodies
CC (Ab) against the polypeptide are useful for prevention and/or treatment
CC of viral infections or diseases characterized by development of tumours
CC or cell degeneration (e.g. Alzheimer's disease or schizophrenia).
CC Analysis of the expression of the nucleotides can be used for diagnosis
CC and/or prognosis of these diseases. The nucleotides and polypeptides can
CC also be used to screen for their specific interactive molecules,
CC potentially useful for treating diseases associated with abnormal
CC expression of the nucleotides.
XX
SQ Sequence 17 BP; 3 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.2e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 202 AGAGGACTGCGAGGATC 218
|||||||||| |||||
Db 17 AGAGGACTGCTCGGATC 1

RESULT 4491
ADD20961/c
ID ADD20961 standard; DNA; 17 BP.
XX
AC ADD20961;
XX
DT 15-JAN-2004 (first entry)
XX
DE Human GAP_N DNA 17-mer oligo #193.
XX
KW gene therapy; antibody therapy; modulator of GAPN;
KW GTP-activator for Rab-like GTPase; GAP_N; immunogen; ss.
XX
OS Homo sapiens.
XX
PN WO2003033703-A2.
XX
PD 24-APR-2003.
XX
PF 11-OCT-2002; 2002WO-US032597.
XX
PR 15-OCT-2001; 2001US-0330323P.
XX
PA (AMSH) AMERSHAM BIOSCIENCES SV CORP.
XX
PI Zhang J;
XX
DR WPI; 2003-403224/38.
XX
PT Novel human GTP-activator protein for Rab-like GTPase and polynucleotide
PT encoding the protein, useful for diagnosing, treating or preventing
PT disorders associated with increased expression or activity of the
PT protein.
XX
PS Example 2; SEQ ID NO 217; 149pp; English.
XX
CC The invention relates to an isolated human GTP-activator protein for Rab-
CC like GTPase (GAPN) polypeptide (I), a sequence having 65% identity to
CC (I), a sequence in which at least 95% of deviations from (I) are
CC conservative substitutions, or a fragment of at least 8 contiguous amino
CC acids of (I). The polypeptide is useful for identifying a specific
CC binding partner for itself, by contacting the polypeptide in vivo to a
CC potential binding partner and determining if the polypeptide binding
CC partner binds to the polypeptide. (I) and a nucleic acid encoding the
CC polypeptide (II) are useful for diagnosing or monitoring a disease caused
CC by altered expression of GAPN, by determining the level of expression of
CC GAPN in a sample of nucleic acids or proteins that derives from a subject
CC suspected to have the disease, alterations from a normal level of
CC expression providing diagnostic and/or monitoring information. (I), (II)
CC or agonist of (I) is useful for treating or preventing a disorder
CC associated with decreased expression or activity of GAPN, and an
CC antagonist of (I) is useful for treating or preventing a disorder
CC associated with increased expression or activity of GAPN (all claimed).

```
CC   (I) is useful as immunogen to raise antibodies that specifically
CC   recognize GAPN proteins. (II) is useful to drive in vivo expression of
CC   GAPN proteins, and as hybridization probes to detect, characterize and
CC   quantify GAPN nucleic acids in and isolate GAPN nucleic acids from both
CC   genomic and transcript-derived nucleic acid samples. This sequence
CC   represents a 17-mer oligonucleotide spanning the GAP_N DNA sequence.
XX
SQ   Sequence 17 BP; 1 A; 6 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        430 CCCCCTGCACCAGCCGG 446
              | ||||||| |||||||
Db         17 CGCCCTGCAGCAGCCGG 1


RESULT 4492
ADE25221
ID   ADE25221 standard; DNA; 17 BP.
XX
AC   ADE25221;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Plant growth associated polynucleotide seq id 196.
XX
KW   plant growth; plant growth trait modulation; Brassicaceae; Arabidopsis;
KW   Brassica; Zea; Oryza; Triticum; Hordeum; Lolium; Sorghum; Glycine;
KW   Medicago; Helianthus; Lactuca; Beta; Vitis; Solanum; Lycopersicon;
KW   Capsicum; Gossypium; Hevea; Linum; Prunus; Citrus; Populus; Pinus;
KW   Quercus; ss.
XX
OS   Magnoliophyta.
XX
PN   US2003188343-A1.
XX
PD   02-OCT-2003.
XX
PF   07-JAN-2003; 2003US-00338777.
XX
PR   09-JAN-2002; 2002US-0347288P.
XX
PA   (LYNX-) LYNX THERAPEUTICS INC.
XX
PI   Bowen BA,  Haudenschild CD,  Buckler ES;
XX
DR   WPI; 2003-803305/75.
XX
PT   New isolated or recombinant polypeptide for use in modulating a plant
PT   growth trait in a flowering plant e.g. in Arabidopsis, Brassica, Zea, or
PT   Oryza.
XX
PS   Example 2; SEQ ID NO 196; 81pp; English.
XX
CC   The invention describes an isolated or recombinant polypeptide (I)
CC   comprising a sequence: (a) comprising 1 of 30 sequences (S1), as given in
CC   the specification, or a conservative variant; (b) encoded by 1 of 30
CC   sequences (S2), as given in the specification, or a conservative variant;
CC   (c) encoded by a sequence that hybridises under stringent conditions to
CC   S2; and (d) encoded by a sequence 70 % identical to S2. The expression or
CC   activity of (I) is modulated to modulate a plant growth trait in a
CC   flowering plant, of the family Brassicaceae, preferably in a plant that
CC   is Arabidopsis, Brassica, Zea, Oryza, Triticum, Hordeum, Lolium, Sorghum,
CC   Glycine, Medicago, Helianthus, Lactuca, Beta, Vitis, Solanum,
CC   Lycopersicon, Capsicum, Gossypium, Hevea, Linum, Prunus, Citrus, Populus,
CC   Pinus, or Quercus. A new method is used to detect genes for a plant
CC   growth trait. This sequence represents a polynucleotide isolated from the
CC   plant growth associated genes of the invention that can be used a a
CC   primer, probe or genetic marker.
XX
SQ   Sequence 17 BP; 14 A; 1 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAA 2801
              ||  |||||||||||||
Db          1 GATCAAAAAAAAAAAAA 17


RESULT 4493
ADE25221/c
ID   ADE25221 standard; DNA; 17 BP.
XX
AC   ADE25221;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Plant growth associated polynucleotide seq id 196.
XX
KW   plant growth; plant growth trait modulation; Brassicaceae; Arabidopsis;
KW   Brassica; Zea; Oryza; Triticum; Hordeum; Lolium; Sorghum; Glycine;
KW   Medicago; Helianthus; Lactuca; Beta; Vitis; Solanum; Lycopersicon;
KW   Capsicum; Gossypium; Hevea; Linum; Prunus; Citrus; Populus; Pinus;
KW   Quercus; ss.
XX
OS   Magncliophyta.
XX
PN   US2003188343-A1.
XX
PD   02-OCT-2003.
XX
PF   07-JAN-2003; 2003US-00338777.
XX
PR   09-JAN-2002; 2002US-0347288P.
XX
PA   (LYNX-) LYNX THERAPEUTICS INC.
XX
PI   Bowen BA,  Haudenschild CD,  Buckler ES;
XX
DR   WPI; 2003-803305/75.
XX
PT   New isolated or recombinant polypeptide for use in modulating a plant
PT   growth trait in a flowering plant e.g. in Arabidopsis, Brassica, Zea, or
PT   Oryza.
XX
PS   Example 2; SEQ ID NO 196; 81pp; English.
XX
CC   The invention describes an isolated or recombinant polypeptide (I)
CC   comprising a sequence: (a) comprising 1 of 30 sequences (S1), as given in
CC   the specification, or a conservative variant; (b) encoded by 1 of 30
CC   sequences (S2), as given in the specification, or a conservative variant;
CC   (c) encoded by a sequence that hybridises under stringent conditions to
CC   S2; and (d) encoded by a sequence 70 % identical to S2. The expression or
CC   activity of (I) is modulated to modulate a plant growth trait in a
CC   flowering plant, of the family Brassicaceae, preferably in a plant that
CC   is Arabidopsis, Brassica, Zea, Oryza, Triticum, Hordeum, Lolium, Sorghum,
CC   Glycine, Medicago, Helianthus, Lactuca, Beta, Vitis, Solanum,
CC   Lycopersicon, Capsicum, Gossypium, Hevea, Linum, Prunus, Citrus, Populus,
CC   Pinus, or Quercus. A new method is used to detect genes for a plant
CC   growth trait. This sequence represents a polynucleotide isolated from the
CC   plant growth associated genes of the invention that can be used a a
CC   primer, probe or genetic marker.
XX
SQ   Sequence 17 BP; 14 A; 1 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2173 TTTTTTTTTTTTTTAAC 2189
              |||||||||||||| | |
Db         17 TTTTTTTTTTTTTGATC 1
```

```
RESULT 4494
ADE30707
ID   ADE30707 standard; DNA; 17 BP.
XX
AC   ADE30707;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Cholesterol homeostasis/adipogenesis related DNA seq id 94.
XX
KW   expression vector; anorectic; antiarteriosclerotic; cardiant;
KW   antidiabetic; elevated cholesterol; elevated lipid; adipogenesis;
KW   obesity; atherscleros is; diabetes mellitus;
KW   coronary artery heart disease; cholesterol homeostasis; ss;
KW   differntial expression.
XX
OS   Homo sapiens.
XX
PN   US2003180764-A1.
XX
PD   25-SEP-2003.
XX
PF   08-JAN-2003; 2003US-00339793.
XX
PR   09-JAN-2002; 2002US-0347286P.
XX
PA   (LYNX-) LYNX THERAPEUTICS INC.
XX
PI   Shang J,  Bowen B;
XX
DR   WPI; 2003-830986/77.
XX
PT   Polynucleotides differentially regulated in response to cholesterol and
PT   adipogenesis are useful to detect and treat associated conditions such as
PT   obesity, atherscleros is, diabetes mellitus and coronary artery heart
PT   disease.
XX
PS   Claim 8; SEQ ID NO 94; 59pp; English.
XX
CC   The invention describes a composition comprising at least one expression
CC   vector comprising a polynucleotide of the invention. The composition has
CC   anorectic, antiarteriosclerotic, cardiant and antidiabetic properties.
CC   The invention is used to detect and treat conditions associated with
CC   elevated cholesterol and lipid or during adipogenesis, particularly
CC   obesity, atherscleros is, diabetes mellitus or coronary artery heart
CC   disease. This sequence represents a polynucleotide differentially
CC   expressed during cholesterol homeostasis and adipogenesis.
XX
SQ   Sequence 17 BP; 4 A; 2 C; 1 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 3.2e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2460 GATCCAATTTTAATATT 2476
              ||||| |||||||| ||
Db          1 GATCCTATTTTAATTTT 17


RESULT 4495
AAQ20007
ID   AAQ20007 standard; DNA; 18 BP.
XX
AC   AAQ20007;
XX
DT   01-APR-1992  (first entry)
XX
DE   Oligonucleotide #3 able to covalently cross-link to target DNA.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group;
KW   aziridinylcytosine; cross-linking group; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   9
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   modified_base   15
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  da
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 2; Page 21; 42pp; English.
XX
CC   The 3' end of this oligonucleotide carries 1,3-propanediol. The oligo is
CC   one of four oligonucleotides which were designed to specifically bind and
CC   cross-link to the duplex target sequence AAQ20004. Oligo #3 has a
CC   covalent cross-linking group, i.e. N4N4-ethanocytosine, at its 5'- and 3'
CC   -ends. An assay for crosslinked triple helix showed the most complete
CC   reaction with Oligo #3. A control oligo with no cross-linking group
CC   showed no reaction while Oligos #1 (see AAQ20005) and #2 (AAQ20006) with
CC   the crosslinking group at the 5' and 3' ends, respectively, showed
CC   considerable reaction. An oligonucleotide with N4N4-ethanocytosine within
CC   its sequence (see AAQ20008) showed less effective binding
XX
SQ   Sequence 18 BP; 0 A; 4 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2165 CTTTTTTTTTTTTTTT 2181
              |||||||| ||||| ||
Db          1 CTTTTTTTCTTTTTCTT 17


RESULT 4496
AAQ20007/c
ID   AAQ20007 standard; DNA; 18 BP.
XX
AC   AAQ20007;
XX
DT   01-APR-1992  (first entry)
XX
DE   Oligonucleotide #3 able to covalently cross-link to target DNA.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group;
```

```
KW   aziridinylcytosine; cross-linking group; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   9
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   modified_base   15
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  da
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 2; Page 21; 42pp; English.
XX
CC   The 3' end of this oligonucleotide carries 1,3-propanediol. The oligo is
CC   one of four oligonucleotides which were designed to specifically bind and
CC   cross-link to the duplex target sequence AAQ20004. Oligo #3 has a
CC   covalent cross-linking group, i.e. N4N4-ethanocytosine, at its 5'- and 3'
CC   -ends. An assay for crosslinked triple helix showed the most complete
CC   reaction with Oligo #3. A control oligo with no cross-linking group
CC   showed no reaction while Oligos #1 (see AAQ20005) and #2 (AAQ20006) with
CC   the crosslinking group at the 5' and 3' ends, respectively, showed
CC   considerable reaction. An oligonucleotide with N4N4-ethanocytosine within
CC   its sequence (see AAQ20008) showed less effective binding
XX
SQ   Sequence 18 BP; 0 A; 4 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAA 2801
              ||| ||||| |||||||
Db         18 GAAGAAAAAGAAAAAAA 2


RESULT 4497
AAQ36431
ID   AAQ36431 standard; DNA; 18 BP.
XX
AC   AAQ36431;
XX
DT   25-MAR-2003  (revised)
DT   05-MAR-1993  (first entry)
XX
DE   GRP-R primer (EXT 3).
XX
KW   Gastrin releasing peptide; GRP; bombesin; neuromedin B; NMB; ranatensin;
KW   RBP; bombesin-like peptide; R1BP; R2BP; R2BP; receptor; agonist;
KW   antagonist; ligand; antibody; cancer; ss.
XX
OS   Synthetic.
XX
PN   WO9216623-A2.
XX
PD   01-OCT-1992.
XX
PF   13-MAR-1992;   92WO-US002091.
XX
PR   15-MAR-1991;   91US-00670603.
PR   03-OCT-1991;   91US-00771332.
XX
PA   (BERL-) BERLEX LAB INC.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICE.
XX
PI   Battey JF,  Corjay MH,  Fathi Z,  Feldman RI,  Harkin RN;
PI   Slattery TK,  Wada E,  Wu JM;
XX
DR   WPI; 1992-349208/42.
XX
PT   Receptors for bombesin-like peptide(s) and their DNA - useful for
PT   screening for agonists and antagonists of the receptor ligands, also for
PT   treating or diagnosing cancer.
XX
PS   Example 12; Page 85-91; 173pp; English.
XX
CC   The primers of AAQ36431-32 were used in the identification of cDNA clone
CC   encoding the Swiss 3T3 GRP Receptor. EXT 3 (AAQ36431) was used as a gene-
CC   specific primer for reverse transcription of Swiss 3T3 mRNA, and EXT 2
CC   (AAQ36432) was used as a gene specific primer for Taq DNA polymerase
CC   catalysed PCR. The DNA sequences encoding mouse R1BP; human R1BP; rat
CC   R2BP; human R2BP and human R3BP are given in AAQ29158-62 respectively.
CC   The receptor gene and encoded polypeptide are used for screening for
CC   agonists and antagonists of the receptor ligands, for producing
CC   diagnostic or therapeutic reagents, and for producing antibodies. Hosts
CC   suffering from abnormal receptor function, e.g. proliferative cell
CC   conditions such as cancers, may be treated. The mouse GRP receptor was
CC   isolated from Swiss 3T3 fibroblasts and sequenced. The sequence was used
CC   to design oligonucleotide probes to isolate DNA encoding mouse GRP
CC   receptor from a Swiss 3T3 cDNA library. This DNA was then used as a probe
CC   to isolate rat NMB receptor, human GRP receptor, human NMB receptor and
CC   human R3BP (incompletely characterised homologous putative receptor) from
CC   DNA libraries. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 18 BP; 5 A; 4 C; 9 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       455 GGCAGCCAGCAGCAGGC 471
             || |||||||||| ||||
Db         2 GGGAGCCAGCAGAAGGC 18


RESULT 4498
AAQ34456
ID   AAQ34456 standard; DNA; 18 BP.
XX
AC   AAQ34456;
XX
DT   17-DEC-2001  (revised)
DT   12-MAY-1993  (first entry)
XX
DE   DQA1 probe AG2.3, for allele 0103.
XX
KW   Amplification; conformation polymorphism; SSCP; DQ-alpha; DQ-beta;
KW   cystic fibrosis; neurofibromatosis; ss.
XX
```

OS Synthetic.
XX
PN USN7751892-N.
XX
PD 01-DEC-1992.
XX
PF 29-AUG-1991; 91US-00751892.
XX
PR 29-AUG-1991; 91US-00751892.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICE.
XX
PI Mann D, Dean M, Carrington M, White MB;
XX
DR WPI; 1993-017809/02.
XX
PT Distinguishing multiple alleles and identifying new alleles - by single-
PT strand conformation polymorphism technique using specific gel
PT electrophoresis conditions.
XX
PS Disclosure; Page 19; 36pp; English.
XX
CC The oligomer AG2.3 represents a specific probe for DQA1 allele 0103 and
CC is used to distinguish multiple alleles of a gene of the immunoglobin
CC supergene family. The DNA encoding the gene of interest in a sample is
CC amplified and then denatured. The amplified DNA is then separated on a
CC non-denaturing polyarylamide gel consisting of 5 percent bis-acrylamide
CC with 0-10 percent glycerol, and the presence or absence of DNA bands
CC showing hybridisation is detected. Before amplification of the gene, the
CC alleles may be divided into subsets by oligonucleotide hybridisation.
CC Using single stranded conformation polymorphism (SSCP) multiple alleles
CC in complex genetic systems can be distinguished e.g. DQ-alpha and DQ-beta
CC and new alleles identified. The method may be used in studying genetic
CC associations with disease, in forensic analyses and typing tissues for
CC transplantation. The SSCP method has been used for detection of mutant
CC alleles which correlate with the presence of disorders such as cystic
CC fibrosis and neurofibromatosis. See also AAQ34443-73. (Note: Revised
CC entry submitted to correct the patent number format of US Government-
CC owned NTIS applications to prevent clashes with ongoing US granted patent
CC numbers. For further information please visit the Derwent web site at
CC www.derwent.com/dwpi/updates/ntis_us.html.)
XX
SQ Sequence 18 BP; 8 A; 2 C; 7 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1489 CCTGGAGAAAATGGAGA 1505
||||||||| | |||||
Db 2 CCTGGAGAAGAAGGAGA 18

RESULT 4499
AAX15198
ID AAX15198 standard; DNA; 18 BP.
XX
AC AAX15198;
XX
DT 25-MAR-2003 (revised)
DT 28-APR-1999 (first entry)
XX
DE Triple helix forming oligonucleotide.
XX
KW Double-stranded DNA; triple helix; quinoline;
KW quinazoline-based structure; hydrogen bonding; ss.
XX
OS Synthetic.
XX
PN WO9623777-A1.
XX
PD 08-AUG-1996.
XX
PF 29-JAN-1996; 96WO-US001473.
XX
PR 01-FEB-1995; 95US-00384324.
XX
PA (UYNE-) UNIV NEBRASKA.
XX
PI Gold BI;
XX
DR WPI; 1996-371338/37.
XX
PT New substd. quinoline and quinazoline cpds. - are monomers for triple
PT helix-forming oligo:nucleotide analogues useful e.g. for treating tumours
PT or viral infection.
XX
PS Disclosure; Fig 2; 102pp; English.
XX
CC The present sequence represents a triple helix forming oligonucleotide
CC that form a triple helix with the double-stranded DNA sequence described
CC in AAX15197. The specification describes novel monomeric compositions
CC which are substituted quinoline or quinazoline-based structures capable
CC of hydrogen bonding specifically with interstrand purine-pyrimidine pairs
CC in a double stranded Watson-Crick DNA molecule to form a triple-helix.
CC (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ Sequence 18 BP; 0 A; 3 C; 0 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2165 CTTTTTTTTTTTTTTT 2181
|||| |||||||| |||
Db 2 CTTTCTTTTTTTTCTTT 18

RESULT 4500
AAX15196/c
ID AAX15196 standard; DNA; 18 BP.
XX
AC AAX15196;
XX
DT 25-MAR-2003 (revised)
DT 28-APR-1999 (first entry)
XX
DE Triple helix forming oligonucleotide.
XX
KW Double-stranded DNA; triple helix; quinoline;
KW quinazoline-based structure; hydrogen bonding; ss.
XX
OS Synthetic.
XX
PN WO9623777-A1.
XX
PD 08-AUG-1996.
XX
PF 29-JAN-1996; 96WO-US001473.
XX
PR 01-FEB-1995; 95US-00384324.
XX
PA (UYNE-) UNIV NEBRASKA.
XX
PI Gold BI;
XX
DR WPI; 1996-371338/37.
XX
PT New substd. quinoline and quinazoline cpds. - are monomers for triple
PT helix-forming oligo:nucleotide analogues useful e.g. for treating tumours
PT or viral infection.
XX
PS Disclosure; Fig 1; 102pp; English.
XX
CC The present sequence represents a triple helix forming oligonucleotide
CC that form a triple helix with the double-stranded DNA sequence described

```
CC   in AAX15195. The specification describes novel monomeric compositions
CC   which are substituted quinoline or quinazoline-based structures capable
CC   of hydrogen bonding specifically with interstrand purine-pyrimidine pairs
CC   in a double stranded Watson-Crick DNA molecule to form a triple-helix.
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 18 BP; 0 A; 3 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAA 2801
              ||||| |||||| ||||
Db         17 GAAAAGAAAAAAGAAAA 1


RESULT 4501
AAT36431
ID   AAT36431 standard; DNA; 18 BP.
XX
AC   AAT36431;
XX
DT   16-APR-1997  (first entry)
XX
DE   Human papillomavirus 45 (HPV45) E6 gene probe.
XX
KW   Human papillomavirus; HPV; oncogene; cervical cancer; neoplasia; probe;
KW   detection amplification; diagnosis; prognosis; high risk; low risk;
KW   ELISA; enzyme-linked immunosorbent assay; PCR; primer;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9625521-A1.
XX
PD   22-AUG-1996.
XX
PF   16-FEB-1996;   96WO-US002130.
XX
PR   17-FEB-1995;   95US-00390684.
PR   07-JUN-1995;   95US-00479777.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Silverstein SJ,  Lungu O,  Wright TC,  Richart RM;
XX
DR   WPI; 1996-393421/39.
XX
PT   Detecting high oncogenic potential human papilloma virus strains - by
PT   specific PCR of nucleic acid in cervical cells, reacting amplified prod.
PT   with specific probe and detecting bound probe by ELISA.
XX
PS   Claim 10; Page 21; 56pp; English.
XX
CC   AAT36430-T36432 are a 5' primer, probe and 3' primer, respectively, used
CC   for the amplification and detection of human papillomavirus 45 (HPV45) E6
CC   gene. The E6 gene product is implicated in human papillomavirus
CC   carcinogenesis and therefore should be present in all HPV related
CC   cervical carcinomas. The primers and probe are used in a PCR/ELISA method
CC   for the diagnosis of HPV45 in a sample. HPV45 is a high-risk oncogenic
CC   HPV type, detection of the E6 gene in a sample indicates a high risk of
CC   cervical cancer development. Primers and probes for low-risk HPV types
CC   (HPV6, HPV11, HPV30, etc.) are also used in the same PCR/ELISA method for
CC   diagnosis of oncogenic potential of a cervical smear. The probes and
CC   primers are also useful for diagnosing cervical cancer and high grade
CC   cervical lesions
XX
SQ   Sequence 18 BP; 7 A; 2 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1499 ATGGAGAAACACAGGAA 1515
              ||||||| |||| ||||
Db          2 ATGGAGAGACACTGGAA 18


RESULT 4502
AAT93487
ID   AAT93487 standard; DNA; 18 BP.
XX
AC   AAT93487;
XX
DT   11-FEB-1998  (first entry)
XX
DE   DQA1 allele determining DNA DQA4102 strand A.
XX
KW   DQA1; DQA4102; histocompatibility locus; allele; resequencing analysis;
KW   flow cytometry; Differentially fluorescent microsphere; DFM; human;
KW   multiplex assay; bead-set; fluorophore; epitope mapping; screening;
KW   therapeutic drug; multiple analyte; gene mutation; PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9714028-A2.
XX
PD   17-APR-1997.
XX
PF   10-OCT-1996;   96WO-US016198.
XX
PR   11-OCT-1995;   95US-00540814.
PR   11-OCT-1995;   95US-00542401.
XX
PA   (LUMI-) LUMINEX CORP.
XX
PI   Chandler VS,  Fulton RJ,  Chandler MB;
XX
DR   WPI; 1997-236023/21.
XX
PT   Bead-sets for simultaneous assay of multiple analytes by cytometric
PT   analysis - comprise many subsets carrying specific reagent and
PT   identifiable from all other subsets by fluorescence parameters,
PT   especially for clinical assays, and detecting gene mutation.
XX
PS   Disclosure; Page 102; 293pp; English.
XX
CC   This DNA sequence DQA4102 determines DQA1 allele. The allele specific for
CC   this DNA is 0103. The 8 major alleles of the DQA1 gene are determined by
CC   fourteen unique DNA sequences contained within a 227 bp PCR product. This
CC   is used in flow cytometry to perform resequencing analysis of the PCR
CC   products where the presence or absence of all fourteen DNA sequences can
CC   be determined simultaneously in a single reaction tube containing the
CC   mixed bead-set. The system is based on competitive hybridisation between
CC   the PCR product and complementary oligonucleotide pairs representing the
CC   unique DNA sequences. This strand is labelled with a green emitting
CC   fluorophore and the complementary strand of this oligonucleotide pair is
CC   coupled to a unique subset of microspheres. This fluorescent
CC   oligonucleotide and the PCR product are added to the bead-set containing
CC   the microsphere subset and the mixture is hybridised and analysed by flow
CC   cytometry. The other DNA pairs of sequences are labelled and coupled
CC   similarly. The ability of the PCR product to inhibit the hybridisation of
CC   the fluorescent oligonucleotides to their respective microsphere subset
CC   is used to detemine the DNA sequence and the corresponding alleles
CC   present in the PCR product. The flow cytometry method using the novel
CC   bead-sets can also be used in quantitative and qualitative assay of
CC   illicit or therapeutic drugs, antigens, auto antibodies, analytes
CC   commonly elevated during pregnancy or nucleic acids, epitope screening of
CC   a monoclonal antibody and for detecting specific gene mutations
XX
SQ   Sequence 18 BP; 8 A; 2 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
```

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1489 CCTGGAGAAAATGGAGA 1505
              ||||||||| | |||||
Db          2 CCTGGAGAAGAAGGAGA 18


RESULT 4503
AAT93488/c
ID   AAT93488 standard; DNA; 18 BP.
XX
AC   AAT93488;
XX
DT   11-FEB-1998  (first entry)
XX
DE   DQA1 allele determining DNA DQA4102 strand B.
XX
KW   DQA1; DQA4102; histocompatibility locus; allele; resequencing analysis;
KW   flow cytometry; Differentially fluorescent microsphere; DFM; human;
KW   multiplex assay; bead-set; fluorophore; epitope mapping; screening;
KW   therapeutic drug; multiple analyte; gene mutation; PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9714028-A2.
XX
PD   17-APR-1997.
XX
PF   10-OCT-1996;   96WO-US016198.
XX
PR   11-OCT-1995;   95US-00540814.
PR   11-OCT-1995;   95US-00542401.
XX
PA   (LUMI-) LUMINEX CORP.
XX
PI   Chandler VS,  Fulton RJ,  Chandler MB;
XX
DR   WPI; 1997-236023/21.
XX
PT   Bead-sets for simultaneous assay of multiple analytes by cytometric
PT   analysis - comprise many subsets carrying specific reagent and
PT   identifiable from all other subsets by fluorescence parameters,
PT   especially for clinical assays, and detecting gene mutation.
XX
PS   Disclosure; Page 102; 293pp; English.
XX
CC   This DNA sequence DQA4102 determines DQA1 allele. The allele specific for
CC   this DNA is 0103. The 8 major alleles of the DQA1 gene are determined by
CC   fourteen unique DNA sequences contained within a 227 bp PCR product. This
CC   is used in flow cytometry to perform resequencing analysis of the PCR
CC   products where the presence or absence of all fourteen DNA sequences can
CC   be determined simultaneously in a single reaction tube containing the
CC   mixed bead-set. The system is based on competitive hybridisation between
CC   the PCR product and complementary oligonucleotide pairs representing the
CC   unique DNA sequences. This strand is coupled to a unique subset of
CC   microspheres and the complementary strand of this oligonucleotide pair is
CC   labelled with a green emitting fluorophore. The fluorescent
CC   oligonucleotide and the PCR product are added to the bead-set containing
CC   the microsphere subset and the mixture is hybridised and analysed by flow
CC   cytometry. The other DNA pairs of sequences are labelled and coupled
CC   similarly. The ability of the PCR product to inhibit the hybridisation of
CC   the fluorescent oligonucleotides to their respective microsphere subset
CC   is used to detemine the DNA sequence and the corresponding alleles
CC   present in the PCR product. The flow cytometry method using the novel
CC   bead-sets can also be used in quantitative and qualitative assay of
CC   illicit or therapeutic drugs, antigens, auto antibodies, analytes
CC   commonly elevated during pregnancy or nucleic acids, epitope screening of
CC   a monoclonal antibody and for detecting specific gene mutations
XX
SQ   Sequence 18 BP; 1 A; 7 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1489 CCTGGAGAAAATGGAGA 1505
              ||||||||| | |||||
Db         17 CCTGGAGAAGAAGGAGA 1


RESULT 4504
AAX71708/c
ID   AAX71708 standard; RNA; 18 BP.
XX
AC   AAX71708;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human KDR VEGF receptor hairpin ribozyme substrate #6.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 118; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 18 BP; 5 A; 4 C; 2 G; 0 T; 7 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2687 AAATGGAGATTTGGAAT 2703
              ||||||||| || |||
Db         18 AAATGGAGATCTGTAAT 2


RESULT 4505
AAV13864/c
ID   AAV13864 standard; DNA; 18 BP.
```

```
XX
AC   AAV13864;
XX
DT   26-MAY-1998  (first entry)
XX
DE   Oligonucleotide-cyclopropapyrroloindole conjugate.
XX
KW   sequence specific hybridisation; cyclopropapyrroloindole conjugate; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "2-(acetyl-6-aminohexanoyl)-1,2,8,8a- tetrahydro-7
FT                   -methylcyclopropa[c]pyrrolo[3,2-e] indol-4(5)-one is
FT                   attached to this base via a phosphorothioate linkage"
XX
PN   US5659022-A.
XX
PD   19-AUG-1997.
XX
PF   05-JAN-1996;   96US-00583435.
XX
PR   05-JAN-1996;   96US-00583435.
XX
PA   (EPOC-) EPOCH PHARM INC.
XX
PI   Meyer RB,  Gall A,  Gamper HB,  Kutyavin IV,  Lukhtanov EA;
XX
DR   WPI; 1997-433902/40.
XX
PT   Oligo:nucleotide-cyclopropa:pyrrolo:indole conjugates - are sequence-
PT   specific agents for attachment to nucleic acids useful for gene-mapping
PT   and as diagnostic and therapeutic agents.
XX
PS   Disclosure; Col 13; 14pp; English.
XX
CC   The invention relates to covalently linked conjugates between an
CC   oligonucleotide (ODN) and a cross-linking agent, in which the ODN
CC   possesses a sequence which is complementary to a target sequence in a
CC   nucleic acid. The conjugates are of general formula R-Linker-[X-
CC   (P=O)(Y)]q-ODN, in which: q = 0 or 1; the X-(P=O)(Y)- group is attached
CC   at the 3' and/or 5' end of the ODN; X = O or S; Y = O-, S- or CH3; ODN =
CC   an oligomer of 3-500 nucleotide units in which (1) the sugar moieties
CC   attached to the heterocyclic bases are independently beta-2-
CC   deoxyribofuranose or beta-2-OR'-ribofuranose moieties, (2) the
CC   internucleotide linkages optionally include phosphorothioate and/or
CC   methylphosphonate linkages and (3) the ODN optionally has covalently
CC   attached to it an intercalator group, a reporter group, a lipophilic
CC   group or a minor groove binder; R' = 1-5C alkyl or 2-5C alkenyl; Linker =
CC   a divalent moiety of 2-30 atoms in length; R = a specified cyclopropa-
CC   pyrroloindole (CPI) or analogue group; provided that when q = 0 then the
CC   Linker group is attached to the 5-position of a uracil or to the 8-
CC   position of a purine base of a 5' or 3' terminal nucleotide of the ODN.
CC   The conjugates are able to bind reversibly to specific target sequences
CC   in DNA or RNA strands via the ODN moiety, whereupon the CPI group is able
CC   to alkylate and covalently link to N atoms in the bases of the nucleic
CC   acids. The presence of the ODN section significantly improves the
CC   efficiency of the alkylation reaction. The conjugates are useful as
CC   diagnostic and analytical tools, especially for gene mapping, and as
CC   therapeutic agents for the inhibition of viral RNA replication
XX
SQ   Sequence 18 BP; 4 A; 3 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        165 CCATGTTGTGGAAAATA 181
              ||||||||||  |||| |
Db         17 CCATGTTGTGCAAAAAA 1
```

```
RESULT 4506
AAX63292/c
ID   AAX63292 standard; RNA; 18 BP.
XX
AC   AAX63292;
XX
DT   16-JUL-1999  (first entry)
XX
DE   Delta-9 desaturase hairpin ribozyme substrate SEQ ID NO:1167.
XX
KW   Maize; corn; Zea mays; delta-9 desaturase; GBSS; target; substrate;
KW   granule bound starch synthase; hammerhead ribozyme; hairpin ribozyme;
KW   modulation; gene expression; transgenic plant; cleavage; canola plant;
KW   caffeine synthesis; coffee plant; nicotine production; tobacco;
KW   fruit ripening; flower pigmentation; lignin production; ss.
XX
OS   Zea mays.
XX
PN   WO9710328-A2.
XX
PD   20-MAR-1997.
XX
PF   12-JUL-1996;   96WO-US011689.
XX
PR   13-JUL-1995;   95US-0001135P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (DOWC ) DOWELANCO.
XX
PI   Zwick MG,  Edington BE,  Mcswiggen JA,  Merlo PAO,  Guo L,  Skokut TA;
PI   Young SA,  Folkerts O,  Merlo DJ;
XX
DR   WPI; 1997-202224/18.
XX
PT   Ribozyme which modulates plant gene expression - preferably modulates
PT   expression of DELTA-9 desaturase or granule bound starch synthase in
PT   maize or canola.
XX
PS   Claim 40; Page 93; 155pp; English.
XX
CC   The present invention describes an enzymatic nucleic acid molecule (I)
CC   with RNA cleaving activity, which modulates the expression of a plant
CC   gene. Also described is a gene comprising a cDNA sequence encoding maize
CC   Delta-9 desaturase. (I) can be used to modulate expression of a gene,
CC   preferably Delta-9 desaturase or a granule bound starch synthase (GBSS)
CC   gene, in a plant (preferably a maize or canola plant). (I) can be used to
CC   modulate caffeine synthesis in a coffee plant, nicotine production in a
CC   tobacco plant, fruit ripening processes in an apple, tomato, pear, plum
CC   or peach plant, flower pigmentation in a rose, petunia, chrysanthemum or
CC   marigold plant or lignin production in a tobacco, aspen, poplar or pine
CC   plant
XX
SQ   Sequence 18 BP; 1 A; 11 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              || |||| |||||||||
Db         18 GCTGCGGCGGCGGCGGC 2


RESULT 4507
AAT98144/c
ID   AAT98144 standard; DNA; 18 BP.
XX
AC   AAT98144;
XX
DT   13-MAR-1998  (first entry)
XX
DE   Primer V-alpha(16) for T-cell receptor alpha chain variable region.
```

```
XX
KW   Antibody; T-cell receptor; beta chain; human immunodeficiency virus; HIV;
KW   blood; attenuation; primer; PCR; amplification; variable region;
KW   constant region; TCR; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5665355-A.
XX
PD   09-SEP-1997.
XX
PF   07-JUN-1995;   95US-00488212.
XX
PR   09-NOV-1992;   92US-00973485.
PR   18-OCT-1994;   94US-00408011.
XX
PA   (CONS-) CONSORZIO BIOTECNOLOGIE.
XX
PI   Primi D;
XX
DR   WPI; 1997-456759/42.
XX
PT   Removal of T-cell receptor-specific antibody from blood of HIV-infected
PT   person - by extracorporeal blood treatment, to attenuate or avert
PT   development of AIDS from HIV infection.
XX
PS   Example 1; Col 11; 43pp; English.
XX
CC   The invention relates to a method for removing an antibody specific for
CC   TCR-V beta (T-cell receptor V beta protein) from an HIV-infected person
CC   by removing blood from the person, removing the antibody from the blood,
CC   and reintroducing the blood into the person, thus allowing attenuation or
CC   aversion of immunodeficiency. The primers AAT98100-T98150 are used to
CC   check the efficiency of removal by detecting expression of the TCR-V-beta
CC   and V-alpha genes in a blood sample after treatment. This primer is
CC   targetted to the variable region sequence of the alpha chain gene and can
CC   be used in the amplification with primers AAT98148 or AAT98149
XX
SQ   Sequence 18 BP; 3 A; 7 C; 2 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        793 TCAGAAGGAGCTGGTGG 809
              ||||||||| |||| ||
Db         17 TCAGAAGGAACTGGAGG 1


RESULT 4508
AAV54725/c
ID   AAV54725 standard; DNA; 18 BP.
XX
AC   AAV54725;
XX
DT   30-OCT-1998  (first entry)
XX
DE   Primer used to detect integration of bGH into Mt-1 rPRL.
XX
KW   Methallothionein-1 promoter; Mt-1; rat; prolactin; rPRL; transgene;
KW   lactogenic; somatogenic receptor; LSR; phenotypic change;
KW   over-expression; growth hormone; bovine; PCR primer; ss.
XX
OS   Synthetic.
OS   Rattus sp.
XX
PN   WO9835989-A1.
XX
PD   20-AUG-1998.
XX
PF   13-FEB-1998;   98WO-SE000266.
XX
PR   14-FEB-1997;   97SE-00000527.
PR   26-FEB-1997;   97US-0039549P.
XX
PA   (TOER/) TOERNELL J.
PA   (KIND/) KINDBLOM J.
PA   (WENN/) WENNBO H.
PA   (ISAK/) ISAKSSON O.
PA   (NORS/) NORSTEDT G.
XX
PI   Toernell J,  Kindblom J,  Wennbo H,  Isaksson O,  Norstedt G;
XX
DR   WPI; 1998-467169/40.
XX
PT   Identifying small molecules that interact with hormone receptors - by
PT   using transgenic animal cells, used to identify agents potentially useful
PT   for treating prostatic hypertrophy, breast cancer or acromegaly.
XX
PS   Example 1; Page 5; 26pp; English.
XX
CC   The present PCR primer, together with AAV54723, was used to detect the
CC   integration of the bovine growth hormone gene into the methallothionein-1
CC   promoter (Mt-1) rat prolactin (rPRL) transgene. The specification
CC   describes screening and identification of low molecular weight compounds
CC   that interact with lactogenic/somatogenic receptors (LSR). The method
CC   uses in vitro cultures, organs of primary, immortalised or transfected
CC   cells from non-human transgenic animals that over-express LSR. The method
CC   is used to identify compounds that influence phenotypic changes induced
CC   by over-expression of lactogenic/somatogenic hormones (LSH), specifically
CC   prolactin, or LSR. These compounds are potentially useful in human
CC   treatments
XX
SQ   Sequence 18 BP; 6 A; 5 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        837 TCTGCTCAGTCCCTGGA 853
              | | ||||||||||||||
Db         18 TGTTCTCAGTCCCTGGA 2


RESULT 4509
AAV16008
ID   AAV16008 standard; DNA; 18 BP.
XX
AC   AAV16008;
XX
DT   21-MAY-1998  (first entry)
XX
DE   PCR primer D-R used to identify Sox-3 gene mutations in mice.
XX
KW   Mutation; Sox-3; ENU mutagenesis; mutational screening; recessive;
KW   single strand conformation polymorphism; SSCP; phenotypic alteration;
KW   PCR primer; amplify; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   WO9744485-A1.
XX
PD   27-NOV-1997.
XX
PF   16-MAY-1997;   97WO-GB001354.
XX
PR   17-MAY-1996;   96GB-00010355.
XX
PA   (HEXA-) HEXAGEN TECHNOLOGY LTD.
XX
PI   Goodfellow PN;
XX
DR   WPI; 1998-018536/02.
XX
```

PT Identification of mutation(s) in genes of interest - without prior
PT observation of phenotypic alteration in the mutated organism or cell.
XX
PS Example 4; Page 41; 66pp; English.
XX
CC PCR primers AAV16001-18 were used to identify mutations in Sox-3 using
CC the method of the invention. The primers are located throughout the gene
CC and are unique to Sox-3. The method comprises testing a nucleic acid
CC sample from a mutated organism for a mutation in a gene of interest
CC without the prior observation of a phenotypic alteration in the mutated
CC organism resulting from the mutation. Sox-3 is a member of the Sox gene
CC family, a family of about 20 genes which all encode a "HMG" box, which is
CC a DNA-binding domain. Mice were mutagenised using ENU mutagenesis. The
CC mutagenised mice were tested by PCR with each primer set and fluorescent
CC single strand conformation polymorphism (SSCP), which identifies mice
CC carrying mutations in Sox-3. The method provides mutational screening
CC based on genomic and genetic techniques rather than on phenotypic
CC observation. The method identifies and characterises genes via
CC mutagenesis to identify genes encoding products which may have
CC therapeutic benefit. The method also identifies the presence of mutations
CC in a gene which do not rely solely upon prior matching of a gene with a
CC disease. Heterozygotic organisms can also be screened to identify those
CC carrying a mutation in a copy of a gene of interest even though the gene
CC may be recessive and therefore causes no phenotypic alteration
XX
SQ Sequence 18 BP; 1 A; 6 C; 11 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 51 GCGGCGGGGGCGGCGGC 67
||||||| | |||||||
Db 1 GCGGCGGCGACGGCGGC 17

RESULT 4510
AAX85987/c
ID AAX85987 standard; DNA; 18 BP.
XX
AC AAX85987;
XX
DT 13-SEP-1999 (first entry)
XX
DE PCR primer used to amplify T cell receptor Va region cDNA.
XX
KW Acquired immune deficiency syndrome; free antibody; paratope; epitope;
KW T cell receptor variable beta region; TCR-V beta region; binding agent;
KW CD4+ T cell; HIV; PCR primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN US5928642-A.
XX
PD 27-JUL-1999.
XX
PF 18-OCT-1994; 94US-00408011.
XX
PR 09-NOV-1992; 92US-00973485.
XX
PA (CONS-) CONSORZIO BIOTECNOLOGIE.
XX
PI Primi D;
XX
DR WPI; 1999-429481/36.
XX
PT Diagnosis and treatment of acquired immune deficiency syndrome.
XX
PS Disclosure; Col 57; 42pp; English.
XX
CC The specification describes a method for the diagnosis and treatment of
CC acquired immune deficiency syndrome, in a person having free antibodies
CC which have a paratope capable of binding to an epitope of a T cell
CC receptor variable beta (TCR-V beta) region. The method comprises
CC administering a binding agent homologous with the TCR-V beta epitope. The
CC binding agent is useful in assays for detecting various CD4+ T cell
CC subpopulations which carry particular V beta components. The binding
CC agent is also useful in the treatment of people infected with HIV where
CC it is able to remove an antibody able to bind with an epitope on a TCR-V
CC beta cell in the blood of an infected person. The present PCR primer is
CC used to amplify the TCR Va region, in the course of the invention
XX
SQ Sequence 18 BP; 3 A; 7 C; 2 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 793 TCAGAAGGAGCTGGTGG 809
||||||||| |||| ||
Db 17 TCAGAAGGAACTGGAGG 1

RESULT 4511
AAZ25592
ID AAZ25592 standard; DNA; 18 BP.
XX
AC AAZ25592;
XX
DT 21-DEC-1999 (first entry)
XX
DE Human RhoG antisense phosphorothioate oligonucleotide #33.
XX
KW Human; RhoG; inhibition; antisense; phosphorothioate; expression; GTPase;
KW mitosis; mitogen; DNA synthesis; cell cycle; cancer;
KW dynamic organisation; actin cytoskeleton; ras-mediated transformation;
KW diagnosis; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT modified_base 1. .18
FT /*tag= a
FT /note= "phosphorothioate linkages"
XX
PN US5965370-A.
XX
PD 12-OCT-1999.
XX
PF 25-SEP-1998; 98US-00161015.
XX
PR 25-SEP-1998; 98US-00161015.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Cowsert LM;
XX
DR WPI; 1999-579906/49.
XX
PT Antisense oligonucleotides useful for inhibiting the expression of the
PT human RhoG gene.
XX
PS Example 15; Col 27; 24pp; English.
XX
CC AAZ25553 to AAZ25582 represent specifically claimed antisense
CC oligonucleotides targeted to, and capable of inhibiting the expression of
CC nucleic acids encoding human RhoG. RhoG is a member of the Rho subfamily
CC of small GTPases the expression of which is associated with the induction
CC of mitosis by mitogens. RhoG is thought to be required for entry into the
CC DNA synthesis step of the cell cycle. It also effects the dynamic
CC organisation of the actin cytoskeleton which regulates changes during
CC cell cycle progression (e.g. cell rounding and pinching off during
CC mitosis) and with determining the density to which cells will proliferate
CC (RhoG affects an actin-dependent signal transduction pathway mediating

```
CC   the level of contact inhibition through surface signals). Additionally,
CC   RhoG is associated with the development of cancers (RhoG participates in
CC   a signalling pathway involving ras-mediated transformation). Antisense
CC   compounds from the present invention may be used for inhibiting the
CC   expression of human RhoG in cells and tissues in vitro and may be used
CC   diagnostically to determine the role of RhoG in various biochemical
CC   pathways (e.g. its role in mitosis, the organisation of the actin
CC   cytoskeleton and in cancer development). AAZ25590 to AAZ25599 represent
CC   more human RhoG antisense oligonucleotides, but they do not inhibit RhoG
CC   as strongly as the specifically claimed sequences
XX
SQ   Sequence 18 BP; 9 A; 2 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1498 AATGGAGAAACACAGGA 1514
              ||||||||||||  | ||
Db          2 AATGGAGAAACAGATGA 18


RESULT 4512
AAX88163/c
ID   AAX88163 standard; DNA; 18 BP.
XX
AC   AAX88163;
XX
DT   09-SEP-1999  (first entry)
XX
DE   T cell receptor alpha chain primer V-alpha16.
XX
KW   T cell receptor; beta chain; primer; antibody; paratope; AIDS; vaccine;
KW   epitope; TCR-V beta; immunogenic; anti-idiotypic; antiviral; detection;
KW   CD4+ cell subpopulation; acquired immune deficiency syndrome; ss.
XX
OS   Synthetic.
XX
PN   US5925513-A.
XX
PD   20-JUL-1999.
XX
PF   07-JUN-1995;   95US-00488209.
XX
PR   09-NOV-1992;   92US-00973485.
PR   18-OCT-1994;   94US-00408011.
XX
PA   (CONS-) CONSORZIO BIOTECNOLOGIE.
XX
PI   Primi D;
XX
DR   WPI; 1999-418267/35.
XX
PT   Diagnosis and treatment of acquired immune deficiency syndrome onset.
XX
PS   Example 1; Col 11-12; 42pp; English.
XX
CC   This invention describes novel method for binding free antibodies having
CC   a paratope specific to an epitope on a T cell receptor (TCR-V beta) while
CC   providing an immunogenic substance able to raise anti-idiotypic
CC   antibodies which bind to free antibodies bound at the same paratope
CC   specific to the epitope on the TCR-V beta and introducing this into a
CC   person to raise anti-idiotypic antibodies. The products of the invention
CC   have antiviral activity and can be used in vaccines. The specific
CC   antibody binding affinities are useful in assays which detect the
CC   presence of CD4+ cell subpopulations carrying particular V beta
CC   components of the TCR-V beta in people infected with acquired immune
CC   deficiency syndrome (AIDS). AAX88119-X88169 represents primers used in
CC   the method of the invention
XX
SQ   Sequence 18 BP; 3 A; 7 C; 2 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        793 TCAGAAGGAGCTGGTGG 809
              |||||||||  ||||  ||
Db         17 TCAGAAGGAACTGGAGG 1


RESULT 4513
AAX90266
ID   AAX90266 standard; DNA; 18 BP.
XX
AC   AAX90266;
XX
DT   27-SEP-1999  (first entry)
XX
DE   DQA1 gene PCR primer DQA4102 A strand.
XX
KW   Monoclonal antibody; epitope; multiplexed analysis; diagnosis;
KW   genetic analysis; flow cytometry; human myelin basic protein; MBP;
KW   microbial antigen; viral antigen; pathological condition; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9936564-A1.
XX
PD   22-JUL-1999.
XX
PF   15-JAN-1999;   99WO-US000918.
XX
PR   16-JAN-1998;   98US-00008387.
XX
PA   (LUMI-) LUMINEX CORP.
XX
PI   Chandler VS,  Fulton JR,  Chandler MB;
XX
DR   WPI; 1999-444409/37.
XX
PT   Beadset for simultaneous detection of many analytes by flow cytometry,
PT   e.g. for detecting antigens, antibodies, or nucleic acid mutations.
XX
PS   Example; Page 102; 301pp; English.
XX
CC   The present invention describes a beadset (A), able to detect many
CC   analytes (I) in a single sample by flow cytometry (FC). (A) is produced
CC   by: (i) providing many subsets of beads which, within each subset, are
CC   homogeneous as regards at least 3 selected class parameters (C) but
CC   sufficiently different in at least one C from beads in other subsets to
CC   provide a profile of C values unique for each subset in FC; (ii) coupling
CC   the beads in each subset with a reactant (R), specific for a given (I)
CC   and (iii) mixing the subsets to form an (A) in which subsets (and thus
CC   bound R) are identifiable in FC from the unique profile of C. A method of
CC   flow cytometry analysis using (A) is used to detect a very wide range of
CC   (I), e.g. microbial or viral antigens (particularly from pathogens that
CC   cause venereal, pulmonary or gastrointestinal disease); therapeutic or
CC   illicit drugs; antigens or antibodies associated with particular
CC   pathological conditions (malignancy, allergy, autoimmune disease, blood-
CC   borne viruses or cardiovascular disease); hormones, including those
CC   indicative of pregnancy; enzymes; immunoglobulins (Ig), particularly of
CC   different (sub)classes; Ig that form part of a particular epitope
CC   (specifically an epitope of human immune deficiency virus) or nucleic
CC   acids (particularly for detecting a wide variety of mutations, e.g. those
CC   present in the ret proto-oncogene, the low density lipoprotein receptor,
CC   the Duchenne muscular dystrophy, angiotensin p53, and Rb genes. The
CC   process is particularly used for diagnosis of disease and for genetic
CC   analysis. The present sequence represents a DQA gene PCR primer used in
CC   the exemplification of the present invention
XX
SQ   Sequence 18 BP; 8 A; 2 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
```

```
Qy       1489 CCTGGAGAAAATGGAGA 1505
              ||||||||| | |||||
Db          2 CCTGGAGAAGAAGGAGA 18
```

RESULT 4514
AAX90267/c
ID AAX90267 standard; DNA; 18 BP.
XX
AC AAX90267;
XX
DT 27-SEP-1999 (first entry)
XX
DE DQA1 gene PCR primer DQA4102 B strand.
XX
KW Monoclonal antibody; epitope; multiplexed analysis; diagnosis;
KW genetic analysis; flow cytometry; human myelin basic protein; MBP;
KW microbial antigen; viral antigen; pathological condition; PCR primer; ss.
XX
OS Synthetic.
XX
PN WO9936564-A1.
XX
PD 22-JUL-1999.
XX
PF 15-JAN-1999; 99WO-US000918.
XX
PR 16-JAN-1998; 98US-00008387.
XX
PA (LUMI-) LUMINEX CORP.
XX
PI Chandler VS, Fulton JR, Chandler MB;
XX
DR WPI; 1999-444409/37.
XX
PT Beadset for simultaneous detection of many analytes by flow cytometry,
PT e.g. for detecting antigens, antibodies, or nucleic acid mutations.
XX
PS Example; Page 102; 301pp; English.
XX
CC The present invention describes a beadset (A), able to detect many
CC analytes (I) in a single sample by flow cytometry (FC). (A) is produced
CC by: (i) providing many subsets of beads which, within each subset, are
CC homogeneous as regards at least 3 selected class parameters (C) but
CC sufficiently different in at least one C from beads in other subsets to
CC provide a profile of C values unique for each subset in FC; (ii) coupling
CC the beads in each subset with a reactant (R), specific for a given (I)
CC and (iii) mixing the subsets to form an (A) in which subsets (and thus
CC bound R) are identifiable in FC from the unique profile of C. A method of
CC flow cytometry analysis using (A) is used to detect a very wide range of
CC (I), e.g. microbial or viral antigens (particularly from pathogens that
CC cause venereal, pulmonary or gastrointestinal disease); therapeutic or
CC illicit drugs; antigens or antibodies associated with particular
CC pathological conditions (malignancy, allergy, autoimmune disease, blood-
CC borne viruses or cardiovascular disease); hormones, including those
CC indicative of pregnancy; enzymes; immunoglobulins (Ig), particularly of
CC different (sub)classes; Ig that form part of a particular epitope
CC (specifically an epitope of human immune deficiency virus) or nucleic
CC acids (particularly for detecting a wide variety of mutations, e.g. those
CC present in the ret proto-oncogene, the low density lipoprotein receptor,
CC the Duchenne muscular dystrophy, angiotensin p53, and Rb genes. The
CC process is particularly used for diagnosis of disease and for genetic
CC analysis. The present sequence represents a DQA gene PCR primer used in
CC the exemplification of the present invention
XX
SQ Sequence 18 BP; 1 A; 7 C; 2 G; 8 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1489 CCTGGAGAAAATGGAGA 1505
              ||||||||| | |||||
Db         17 CCTGGAGAAGAAGGAGA 1
```

RESULT 4515
AAD00540
ID AAD00540 standard; DNA; 18 BP.
XX
AC AAD00540;
XX
DT 29-AUG-2000 (first entry)
XX
DE Human adenine nucleotide translocator ANT3 antisense strand primer #1.
XX
KW Human; adenine nucleotide translocator; ANT3; mitochondria; ADP; ATP;
KW adenosine di-phosphate; adenosine tri-phosphate; apoptosis; MPT; cancer;
KW mitochondrial permeability transition; neuroprotective; nootropic;
KW antiParkinsonian; cytostatic; antidiabetic; anticonvulsant; neuroleptic;
KW antipsoriatic; cerebroprotective; therapeutic; screening; psoriasis;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; dystonia;
KW diabetes; Leber's hereditary optic neuropathy; schizophrenia; MELAS;
KW mitochondrial encephalopathy; lactic acidosis; stroke; MIDD;
KW mitochondrial diabetes and deafness; hyperproliferative disorder;
KW myoclonic epilepsy red ragged fibre syndrome; antisense; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200026370-A2.
XX
PD 11-MAY-2000.
XX
PF 03-NOV-1999; 99WO-US025883.
XX
PR 03-NOV-1998; 98US-00185904.
PR 08-SEP-1999; 99US-00393441.
XX
PA (MITO-) MITOKOR.
XX
PI Anderson CM, Davis RE, Clevenger W, Wiley SE, Miller SW;
PI Szabo TR, Ghosh SS;
XX
DR WPI; 2000-365619/31.
XX
PT Recombinant construct encoding adenine nucleotide translocator
PT polypeptide, useful e.g. in screening for potential therapeutic agents
PT against mitochondrial disease.
XX
PS Example 3; Page 79; 175pp; English.
XX
CC The patent discloses a method to produce adenine nucleotide translocator
CC (ANT) proteins or ANT fusion proteins using recombinant expression
CC constructs. ANT is a nuclear encoded protein and a major component of
CC inner mitochondrial membrane. It mediates transport of adenosine di/tri-
CC phosphates across the mitochondrial inner membrane and also serves as an
CC important molecular component of the mitochondrial permeability
CC transition pore, a modulator of apoptosis. ANT is used to identify agents
CC or ligands that bind to, or interact with it. The ANT ligands are used to
CC detect or isolate ANT in a biological sample, and therapeutically for
CC regulating mitochondrial pore activity, for treating diseases associated
CC with altered mitochondrial function, including Alzheimer's, Parkinson's
CC and Huntington's diseases, cancer, psoriasis, diabetes, dystonia, Leber's
CC hereditary optic neuropathy, schizophrenia, mitochondrial encephalopathy,
CC lactic acidosis and stroke (MELAS), hyperproliferative disorders,
CC mitochondrial diabetes and deafness (MIDD), and myoclonic epilepsy red
CC ragged fibre syndrome. The present sequence is a primer derived from
CC antisense strand of human ANT3 coding sequence and used to determine and
CC confirm the authenticity of the recombinant human ANT gene sequence
CC present in a Baculovirus expression construct
XX
SQ Sequence 18 BP; 5 A; 3 C; 5 G; 5 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
```

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1129 TGAAGCCGAATTTCCTA 1145
              ||||||  |||  ||||||
Db          1 TGAAGCGGAAGTTCCTA 17


RESULT 4516
AAZ75194/c
ID   AAZ75194 standard; DNA; 18 BP.
XX
AC   AAZ75194;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:9550.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 2266; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 18 BP; 6 A; 5 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        932 TGCTTAAATGCCTCGTT 948
              ||  |  ||||||||||||
Db         17 TGGTGAAAATGCCTCGTT 1


RESULT 4517
AAZ43267
ID   AAZ43267 standard; DNA; 18 BP.
XX
AC   AAZ43267;
XX
DT   11-FEB-2000  (first entry)
XX
DE   Murine Sox3 gene PCR primer 8.
XX
KW   Screening; mutation; treatment; disease; drug discovery; PCR primer; ss.
XX
OS   Mus musculus.
XX
PN   US5994075-A.
XX
PD   30-NOV-1999.
XX
PF   16-MAY-1997;   97US-00857946.
XX
PR   17-MAY-1996;   96US-0017824P.
XX
PA   (HEXA-) HEXAGEN TECHNOLOGY LTD.
XX
PI   Goodfellow PN;
XX
DR   WPI; 2000-038255/03.
XX
PT   Identifying a mutation in a gene of interest in an organism useful for
PT   identifying genes encoding products which may have therapeutic benefits.
XX
PS   Example 5; Col 63-64; 70pp; English.
XX
CC   This invention describes a novel mutational screening method based on
CC   genomic and genetic techniques to identify and characterize a mutation in
CC   a gene of interest without first selecting a phenotypic characteristic.
CC   The screening methods are useful for identifying genes encoding products
CC   which may have therapeutic benefit for treating human or animal diseases.
CC   The method can be used for the DNA mutation screening of a class or a
CC   family of genes providing a rapid assay for identifying mutant genes. The
CC   methods produce organisms which can be used for drug discovery e.g.
CC   providing a model for the study and treatment of a disease state, allow
CC   in vitro assessment of drug activity and interbreeding of mutants which
CC   allow investigation of gene interactions in the overall phenotype. A
CC   range of phenotypes associated with different mutations, and specified
CC   mutations in a gene of interest can be determined. The method can be
CC   adapted to screen for a mutation in two or more genes of interest in an
CC   organism. The methods allow mutations in a gene of interest to be
CC   identified without having to rely on matching a gene with a disease.
CC   AAZ43260-Z43421 represent PCR primers used in the method of the invention
XX
SQ   Sequence 18 BP; 1 A; 6 C; 11 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              |||||||  |  |||||||
Db          1 GCGGCGGCGACGGCGGC 17


RESULT 4518
AAA05252
ID   AAA05252 standard; DNA; 18 BP.
XX
AC   AAA05252;
XX
DT   19-MAY-2000  (first entry)
XX
DE   PCR primer D-R used in Sox-3 amplimer generation.
XX
KW   PCR primer; Sox-2; Sox-3; T gene; Tyrosinase; MGF; Sry; c-kit; Tryp-1;
KW   Pax-6; mutation detection; therapeutic target identification; mouse;
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```
KW   mast cell growth factor; ss.
XX
OS   Mus sp.
XX
PN   US6015670-A.
XX
PD   18-JAN-2000.
XX
PF   14-NOV-1997;   97US-00970740.
XX
PR   17-MAY-1996;   96US-0017824P.
PR   16-MAY-1997;   97US-00857946.
XX
PA   (HEXA-) HEXAGEN TECHNOLOGY LTD.
XX
PI   Goodfellow PN;
XX
DR   WPI; 2000-181139/16.
XX
PT   Detecting mutations in selected genes, useful e.g. for identifying
PT   therapeutic targets or products, by analyzing DNA in mutated embryonic
PT   stem cells without phenotypic characterization.
XX
PS   Example 5; Col 31; 66pp; English.
XX
CC   PCR primers AAA05245-A05406 are used to generate amplimers from the mouse
CC   Sox-3 gene, Sox-2 gene, T gene, tyrosinase gene, Tryp-1 gene, Sry gene,
CC   MGF (mast cell growth factor) gene, c-kit gene, and the Pax-6 gene. The
CC   primers are used in a method for the identification of a mutation in a
CC   selected gene in a tissue without the prior observation of a phenotypic
CC   alteration in the mutated organism or cell. The method is used to
CC   identify mutations in a selected gene that encode products of potential
CC   therapeutic activity or that are potential targets, particularly where
CC   the gene of interest has been identified as a candidate gene by
CC   positional cloning. Other applications are determining functions of genes
CC   ; detecting the range of phenotypes associated with different mutations
CC   in a particular gene and identification of particular mutations. Animals
CC   containing an identified mutation are used as models for studying
CC   diseases or their treatment, and cells from them for in vitro assessment
CC   of drug action. Interbreeding of mutant mice is used to investigate
CC   genetic interaction in the overall phenotype
XX
SQ   Sequence 18 BP; 1 A; 6 C; 11 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              ||||||| | |||||||
Db          1 GCGGCGGCGACGGCGGC 17


RESULT 4519
AAZ93440/c
ID   AAZ93440 standard; DNA; 18 BP.
XX
AC   AAZ93440;
XX
DT   24-JUL-2000  (first entry)
XX
DE   TRADD antisense oligonucleotide.
XX
KW   TRADD; TNF; tumour necrosis factor; NF-kappa-B; apoptosis;
KW   programmed cell death; antisense; inhibition; treatment; therapy;
KW   septic shock; inflammation; cancer; antiinflammatory; human; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_binding    complement(1. .18)
FT                   /*tag=  a
FT                   /note= "Complementary to bases 57-40 of the human TRADD
FT                   sequence described in GENESEQ record AAZ93431"
XX
PN   WO200012527-A1.
XX
PD   09-MAR-2000.
XX
PF   25-AUG-1999;   99WO-US019614.
XX
PR   28-AUG-1998;   98US-00143212.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2000-237846/20.
XX
PT   New antisense compounds that limit the expression of human TRADD protein,
PT   useful in the treatment and diagnosis of cancer, inflammation and septic
PT   shock.
XX
PS   Claim 3; Page 51; 85pp; English.
XX
CC   The intracellular protein TRADD has been identified as a critical link
CC   between tumour necrosis factor (TNF) receptor binding and downstream
CC   activation of NF-kappa-B. Overexpression of native TRADD activates NF-
CC   kappa-B in the absence of TNF and dominant negative mutants of TRADD
CC   block TNF-induced NF-kappa-B activation. A second effect of TNF in many
CC   cell types is the induction of apoptosis (programmed cell death). TRADD
CC   overexpression has been shown to mimic TNF induction of apoptosis as
CC   well. Data indicates that TRADD and other downstream effector proteins
CC   are the rate limiting step of TNF action and would therefore serve as the
CC   most efficient targets for inhibition of TNF-induced events. Antisense
CC   oligonucleotides capable of inhibiting TRADD function may therefore be
CC   useful in a number of therapeutic, diagnostic and research applications.
CC   Inhibiting expression of TRADD by contacting human cells or tissues with
CC   the antisense compound may be used to treat a disease or condition
CC   associated with TRADD expression, for example, septic shock,
CC   inflammation, or cancer. TRADD antisense oligonucleotides of varying
CC   inhibitory capabilities are listed in GENESEQ records AAZ93438-Z93517.
CC   The antisense oligonucleotides exhibit enhanced inhibitory capabilities
CC   when they have 2'-MOE wings and a deoxy gap
XX
SQ   Sequence 18 BP; 3 A; 9 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1191 GAAATGAGATGGCAGCT 1207
              ||  |||||||||||||
Db         17 GAGGTGAGATGGCAGCT 1


RESULT 4520
AAZ93475
ID   AAZ93475 standard; DNA; 18 BP.
XX
AC   AAZ93475;
XX
DT   24-JUL-2000  (first entry)
XX
DE   TRADD antisense oligonucleotide.
XX
KW   TRADD; TNF; tumour necrosis factor; NF-kappa-B; apoptosis;
KW   programmed cell death; antisense; inhibition; treatment; therapy;
KW   septic shock; inflammation; cancer; antiinflammatory; human; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_binding    complement(1. .18)
FT                   /*tag=  a
FT                   /note= "Complementary to bases 641-624 of the human TRADD
```

FT sequence described in GENESEQ record AAZ93431"
XX
PN WO200012527-A1.
XX
PD 09-MAR-2000.
XX
PF 25-AUG-1999; 99WO-US019614.
XX
PR 28-AUG-1998; 98US-00143212.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Cowsert LM;
XX
DR WPI; 2000-237846/20.
XX
PT New antisense compounds that limit the expression of human TRADD protein,
PT useful in the treatment and diagnosis of cancer, inflammation and septic
PT shock.
XX
PS Example 15; Page 52; 85pp; English.
XX
CC The intracellular protein TRADD has been identified as a critical link
CC between tumour necrosis factor (TNF) receptor binding and downstream
CC activation of NF-kappa-B. Overexpression of native TRADD activates NF-
CC kappa-B in the absence of TNF and dominant negative mutants of TRADD
CC block TNF-induced NF-kappa-B activation. A second effect of TNF in many
CC cell types is the induction of apoptosis (programmed cell death). TRADD
CC overexpression has been shown to mimic TNF induction of apoptosis as
CC well. Data indicates that TRADD and other downstream effector proteins
CC are the rate limiting step of TNF action and would therefore serve as the
CC most efficient targets for inhibition of TNF-induced events. Antisense
CC oligonucleotides capable of inhibiting TRADD function may therefore be
CC useful in a number of therapeutic, diagnostic and research applications.
CC Inhibiting expression of TRADD by contacting human cells or tissues with
CC the antisense compound may be used to treat a disease or condition
CC associated with TRADD expression, for example, septic shock,
CC inflammation, or cancer. TRADD antisense oligonucleotides of varying
CC inhibitory capabilities are listed in GENESEQ records AAZ93438-Z93517.
CC The antisense oligonucleotides exhibit enhanced inhibitory capabilities
CC when they have 2'-MOE wings and a deoxy gap
XX
SQ Sequence 18 BP; 0 A; 5 C; 12 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 51 GCGGCGGGGGCGGCGGC 67
|| ||||| |||||||||
Db 2 GTGGCGGCGGCGGCGGC 18

RESULT 4521
AAH27102
ID AAH27102 standard; DNA; 18 BP.
XX
AC AAH27102;
XX
DT 06-AUG-2001 (first entry)
XX
DE Heltest4 cleavage fragment.
XX
KW Cleavage structure; target sequence detection; flap endonuclease; FEN;
KW Heltest4; ss.
XX
OS Synthetic.
XX
PN WO200132922-A2.
XX
PD 10-MAY-2001.
XX
PF 27-OCT-2000; 2000WO-US029663.
XX
PR 29-OCT-1999; 99US-00430692.
XX
PA (STRA-) STRATAGENE.
XX
PI Sorge JA;
XX
DR WPI; 2001-328805/34.
XX
PT The labelling of nucleic acids for their detection and quantification
PT comprises the formation of a cleavage structure and its cleavage with a
PT five' exonuclease-1 or flap endonuclease-1.
XX
PS Example 3; Page 22; 81pp; English.
XX
CC This invention relates to a method for generating a signal indicative of
CC the presence of a target nucleic acid sequence in a sample. The method
CC comprises the formation of a cleavage structure through the incubation of
CC a sample comprising a target nucleic acid sequence and a nucleic acid
CC polymerase and cleaving the cleavage structure with a 5' exonuclease-1 or
CC flap endonuclease (FEN) to generate the signal. The method is used for
CC the detection and quantification of a target nucleic acid sequence. The
CC present sequence represents a fragment of oligonucleotide Heltest4, which
CC is used in an assay to evaluate the activity of a FEN endonuclease. This
CC sequence is the fragment of Heltest4 which is cleaved off by FEN
XX
SQ Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAA 2802
|||| ||| ||||||||
Db 1 AAAATAAATAAAAAAAA 17

RESULT 4522
AAH27102/c
ID AAH27102 standard; DNA; 18 BP.
XX
AC AAH27102;
XX
DT 06-AUG-2001 (first entry)
XX
DE Heltest4 cleavage fragment.
XX
KW Cleavage structure; target sequence detection; flap endonuclease; FEN;
KW Heltest4; ss.
XX
OS Synthetic.
XX
PN WO200132922-A2.
XX
PD 10-MAY-2001.
XX
PF 27-OCT-2000; 2000WO-US029663.
XX
PR 29-OCT-1999; 99US-00430692.
XX
PA (STRA-) STRATAGENE.
XX
PI Sorge JA;
XX
DR WPI; 2001-328805/34.
XX
PT The labelling of nucleic acids for their detection and quantification
PT comprises the formation of a cleavage structure and its cleavage with a
PT five' exonuclease-1 or flap endonuclease-1.
XX
PS Example 3; Page 22; 81pp; English.
XX
CC This invention relates to a method for generating a signal indicative of

CC the presence of a target nucleic acid sequence in a sample. The method
CC comprises the formation of a cleavage structure through the incubation of
CC a sample comprising a target nucleic acid sequence and a nucleic acid
CC polymerase and cleaving the cleavage structure with a 5' exonuclease-1 or
CC flap endonuclease (FEN) to generate the signal. The method is used for
CC the detection and quantification of a target nucleic acid sequence. The
CC present sequence represents a fragment of oligonucleotide Heltest4, which
CC is used in an assay to evaluate the activity of a FEN endonuclease. This
CC sequence is the fragment of Heltest4 which is cleaved off by FEN
XX
SQ Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTTT 2182
||||||||| ||| ||||
Db 17 TTTTTTTTATTTATTTT 1

RESULT 4523
AAH56578
ID AAH56578 standard; DNA; 18 BP.
XX
AC AAH56578;
XX
DT 06-SEP-2001 (first entry)
XX
DE S. pneumoniae groE operon antisense oligonucleotide SEQ ID NO:226.
XX
KW Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW antibacterial; antiviral; antiproliferative; antisense therapy;
KW microbial infection; ss.
XX
OS Streptococcus pneumoniae.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA001347.
XX
PR 18-NOV-1999; 99US-0166249P.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT gene of microorganism, which hybridize with and inhibit expression of the
PT genes, useful to inhibit growth of microorganism having the genes.
XX
PS Claim 3; Page 46; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or GS
CC of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC antiproliferative activities, and can be used in antisense therapy and
CC for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL or
CC GS gene and administering (I) such that the growth of microorganism is
CC inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention
XX
SQ Sequence 18 BP; 0 A; 4 C; 2 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2162 CTCCTTTTTTTTTTTTT 2178
||||||| | ||||||
Db 2 CTCCTTTTGTGTTTTTT 18

RESULT 4524
AAS08670
ID AAS08670 standard; DNA; 18 BP.
XX
AC AAS08670;
XX
DT 26-SEP-2001 (first entry)
XX
DE BsgI-AFLP primer/MseI adapter procedure, MseI adapter, 99I37/38.
XX
KW AFLP; 99I37/38; amplified fragment length polymorphism; ds;
KW IIS restriction endonuclease; polymorphism detection; genotyping; cancer;
KW oncogene; high throughput detection; genetic classification;
KW single nucleotide polymorphism.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT misc_feature 1. .4
FT /*tag= a
FT /label= 5'_overhang
FT misc_feature 17. .18
FT /*tag= b
FT /label= 3'_overhang
XX
PN WO200149882-A2.
XX
PD 12-JUL-2001.
XX
PF 28-DEC-2000; 2000WO-NL000963.
XX
PR 29-DEC-1999; 99EP-00204614.
XX
PA (KEYG-) KEYGENE NV.
XX
PI Van Eijk MJT, Hogers RCJ, Heijnen L;
XX
DR WPI; 2001-432889/46.
XX
PT Generating oligonucleotides, involves ligating a double-stranded DNA to
PT another dsDNA comprising IIS restriction endonuclease recognition site,
PT restricting ligated dsDNA, and detecting IIS-restricted dsDNA.
XX
PS Example 1; Page 32; 72pp; English.
XX
CC The sequence represents an MseI adapter, 99I37/38, used in a protocol
CC using an AFLP primer (amplified fragment length polymorphism) containing
CC a BsgI site and an MseI adapter, used to demonstrate the method of the
CC invention. The invention relates to generating an oligonucleotide,

CC involving ligating a first double-stranded DNA (dsDNA) (I) to a second
CC dsDNA (II) comprising at least one recognition site for IIS restriction
CC endonuclease (RE) within its sequence, restricting the ligated dsDNA with
CC at least one RE of the IIS type to obtain IIS-restricted-(I) and -(II),
CC and optionally detecting the obtained IIS-restricted dsDNA. The method is
CC useful for generating and optionally detecting an oligonucleotide in a
CC sample e.g. for identifying polymorphic markers, for classifying an
CC individual as belonging to certain species, sub-species, variety,
CC cultivar, race, strain or line, and for studying the inheritance of
CC genetic traits. The method is also useful for detecting genetic markers
CC for a disease or disorder including cancer, oncogenes and oncogenic
CC mutations. The method is also useful for plant and animal breeding,
CC disease diagnosis in plants and animals, identification of genetically
CC inherited diseases in humans, family relationship analysis, forensic
CC science, organ transplant, microbial and viral typing, as well as the
CC study of gene inheritance, gene expression, mutations, drug resistance,
CC and for mRNA detection. The method is also useful for high throughput
CC detection of single nucleotide polymorphisms, quantitative analysis of
CC DNA or its fragments, and for providing quantitative data in
CC homozygote/heterozygote-AFLP techniques. Note: The complimentary strand
CC of the present sequence appears twice in the specification, the second
CC time as an MseI+1 preamplification primer, 99I40. It is possible that the
CC sequence was duplicated in error and that the genuine 99I40 sequence is
CC missing from the specification
XX
SQ Sequence 18 BP; 5 A; 2 C; 7 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2655 AAGGTGAGTGTGCAGTA 2671
|| ||||||||||||||
Db 2 ACGATGAGTGTGCAGTA 18

RESULT 4525
AAF94740
ID AAF94740 standard; DNA; 18 BP.
XX
AC AAF94740;
XX
DT 23-MAY-2001 (first entry)
XX
DE Rho G antisense phosphorothioate oligonucleotide SEQ ID 164.
XX
KW Rho; GTP binding protein; phosphorothioate antisense oligonucleotide;
KW RhoA; RhoB; RhoC; RhoG; Rac 1; cdc42; hyperproliferative condition;
KW cancer; wound healing; clotting; ischaemia; reperfusion; reoxygenation;
KW ss.
XX
OS Homo sapiens.
XX
PN WO200115739-A1.
XX
PD 08-MAR-2001.
XX
PF 18-AUG-2000; 2000WO-US022808.
XX
PR 31-AUG-1999; 99US-00387341.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Roberts ML, Cowsert LM;
XX
DR WPI; 2001-191677/19.
XX
PT An antisense compound targeted to a nucleic acid molecule encoding a
PT member of the human Rho family of small GTP binding proteins useful for
PT treating e.g. cancer and ischemia.
XX
PS Example 18; Page 81; 156pp; English.
XX
CC This invention relates to an antisense compound targeted to a nucleic
CC acid molecule encoding a member of the human Rho family of small GTP
CC binding proteins, where the antisense compound inhibits the expression of
CC the member of the human Rho family. The invention includes antisense
CC oligonucleotides AAF94580 - AAF94637 which target a RhoA nucleotide
CC sequence, AAF94645 - AAF94684 which target a RhoB nucleotide sequence,
CC AAF94686 - AAF94725 which target a RhoC nucleotide sequence, AAF94727 -
CC AAF94766 which target RhoG nucleotide sequence, AAF94769 - AAF94790 which
CC target a Rac 1 nucleotide sequence and AAF94795 - AAF94809 which target
CC cdc42 nucleotide sequence. The antisense compound is useful for treating
CC hyperproliferative conditions, especially cancer, abnormal wound healing
CC or clotting conditions and ischaemia/reperfusion or reoxygenation injury.
CC The compound may also be used to diagnose the above conditions
XX
SQ Sequence 18 BP; 9 A; 2 C; 5 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1498 AATGGAGAAACACAGGA 1514
||||||||||| | ||
Db 2 AATGGAGAAACAGATGA 18

RESULT 4526
AAS05922
ID AAS05922 standard; DNA; 18 BP.
XX
AC AAS05922;
XX
DT 07-SEP-2001 (first entry)
XX
DE Human ANT-3 sequencing primer #3 used for huANT3-baculovirus construct.
XX
KW Human; adenine nucleotide translocator-3; ANT-3; MTP; cyclophilin;
KW mitochondrial permeability transition pore component; cell survival;
KW mitochondrial core component; mitochondrial related disorder; cancer;
KW Alzheimer's disease; diabetes mellitus; hyperproliferative disorder;
KW primer; ss.
XX
OS Homo sapiens.
XX
PN WO200132876-A2.
XX
PD 10-MAY-2001.
XX
PF 03-NOV-2000; 2000WO-US030535.
XX
PR 03-NOV-1999; 99US-00434354.
XX
PA (MITO-) MITOKOR.
XX
PI Murphy AN, Clevenger W, Wiley SE, Andreyev AY, Frigeri LG;
PI Velicelebi G, Davis RE;
XX
DR WPI; 2001-291054/30.
XX
PT New nucleic acid expression constructs, useful for screening for agents
PT that alter mitochondrial permeability transition (MPT), comprises
PT polynucleotide encoding MPT polypeptide or cyclophilin polypeptide fused
PT to energy transfer molecule.
XX
PS Example 3; Page 85; 186pp; English.
XX
CC The present sequence for human adenine nucleotide translocator-3 (huANT-
CC 3) sequencing primer #3 is used to sequence a huANT3-baculovirus
CC recombinant expression construct. ANT proteins are mitochondrial
CC permeability transition (MTP) pore components responsible for mediating
CC transport of ADP across the mitochondrial inner membrane. ANT proteins
CC interact with other mitochondrial core components e.g. cyclophilins to
CC regulate MPT. The present invention relates to a novel nucleic acid
CC expression construct comprising a promoter operably linked to a

CC polynucleotide encoding a mitochondrial pore component polypeptide (e.g.
CC ANT) fused to an energy transfer molecule (ETM) protein (e.g. green
CC fluorescent protein (GFP) or a FLASH sequence). The novel expression
CC construct can alter mitochondrial membrane permeability transition and/or
CC alter the interaction between mitochondrial core components. The methods
CC are useful for screening for agents that alter MPT and/or cell survival.
CC These agents are useful for the prevention or treatment of diseases
CC associated with altered mitochondrial function or dysfunctional cell
CC survival, such as Alzheimer's disease, diabetes mellitus, Parkinson's
CC disease, Huntington's disease, schizophrenia, mitochondrial
CC encephalopathy, lactic acidosis, stroke, hyperproliferative disorders
CC e.g. cancer, and deafness
XX
SQ Sequence 18 BP; 5 A; 3 C; 5 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1129 TGAAGCCGAATTTCCTA 1145
|||||| ||| ||||||
Db 1 TGAAGCGGAAGTTCCTA 17

RESULT 4527
AAD11767/c
ID AAD11767 standard; DNA; 18 BP.
XX
AC AAD11767;
XX
DT 24-SEP-2001 (first entry)
XX
DE Human AAG6 DNA exon 4.2 amplifying forward PCR primer #22.
XX
KW Human; asthma-associated gene; AAG6; antiinflammatory; gene therapy;
KW obstructive airway disease; asthma; chronic bronchitis; eosinophila;
KW adult respiratory distress syndrome; ARDS; dyspnoea; emphysema; COPD;
KW COAD; chronic obstructive or pulmonary disease; pneumoconiosis;
KW eosinophil related disorder; bronchopulmonary aspergillosis;
KW Loffler's syndrome; polyarteritis nodosa; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200155214-A2.
XX
PD 02-AUG-2001.
XX
PF 23-JAN-2001; 2001WO-EP000719.
XX
PR 25-JAN-2000; 2000US-00490616.
XX
PA (NOVS) NOVARTIS AG.
PA (NOVS) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI Whittaker PA, Jones SJ, Hanley MT;
XX
DR WPI; 2001-457719/49.
XX
PT Novel polypeptide AAG6 useful for treating an inflammatory or obstructive
PT airways disease, e.g., asthma.
XX
PS Example 2; Page 26; 62pp; English.
XX
CC The invention relates to human asthma-associated gene designated as AAG6.
CC AAG6 is used in the diagnosis, prognosis and treatment of inflammatory or
CC obstructive airway diseases such as asthma, adult respiratory distress
CC syndrome (ARDS), chronic obstructive or pulmonary disease (COPD or COAD),
CC chronic bronchitis, dyspnoea, emphysema and pneumoconiosis. AAG6 is also
CC used in the treatment of eosinophil related disorders such as
CC eosinophila, eosinophilic pneumonia, Loffler's syndrome, bronchopulmonary
CC aspergillosis, polyarteritis nodosa and eosinophilic granuloma. AAG6 DNA
CC is useful in gene therapy. The present sequence is a PCR primer used for
CC amplifying human AAG6 DNA
XX
SQ Sequence 18 BP; 5 A; 7 C; 5 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2633 CGTTCCTGTTGGGCTGA 2649
||| |||||||||||| |
Db 18 CGTGCCTGTTGGGCTCA 2

RESULT 4528
AAH91840
ID AAH91840 standard; DNA; 18 BP.
XX
AC AAH91840;
XX
DT 09-OCT-2001 (first entry)
XX
DE Human inflammatory bowel disease associated polymorphic site #915.
XX
KW Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT misc_feature 9
FT /*tag= a
FT /note= "SNP, optionally T or A at this position"
XX
PN WO200142511-A2.
XX
PD 14-JUN-2001.
XX
PF 11-DEC-2000; 2000WO-US033632.
XX
PR 10-DEC-1999; 99US-0170257P.
PR 10-APR-2000; 2000US-0196046P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
PA (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI Daly M, Hudson TJ, Lander ES, Rioux J, Siminovitch K;
XX
DR WPI; 2001-367874/38.
XX
PT Testing for the presence of polymorphisms associated with inflammatory
PT bowel disease, using a hybridization assay.
XX
PS Claim 1; Page 77; 463pp; English.
XX
CC The present invention describes a method for detecting the presence of
CC polymorphisms associated with inflammatory bowel diseases such as
CC ulcerative colitis and Crohn's disease. The methods can be used to detect
CC the presence of genetic polymorphisms associated with inflammatory bowel
CC disease and correlating their occurrence with disease states. They may be
CC used in this way for phenotypic correlations, forensics, paternity
CC testing, medicine and genetic analysis. The present sequence is a
CC polymorphic site described in the exemplification of the invention
XX
SQ Sequence 18 BP; 5 A; 2 C; 0 G; 10 T; 0 U; 1 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2178 TTTTTTTTAACTTTGAA 2195
||||||| ||| || ||
Db 1 TTTTTTTTNAACCTTAAA 18

```
RESULT 4529
ABZ72262/c
ID   ABZ72262 standard; DNA; 18 BP.
XX
AC   ABZ72262;
XX
DT   03-APR-2003  (first entry)
XX
DE   Gene 216 SSCP sequencing primer SEQ ID NO 234.
XX
KW   Human; Gene 216; chromosome 20p13-p12; antiasthmatic; anorectic;
KW   antiinflammatory; gastrointestinal; gene therapy; vaccine; asthma;
KW   obesity; inflammatory bowel disease; primer; ss.
XX
OS   Synthetic.
XX
PN   WO200178894-A2.
XX
PD   25-OCT-2001.
XX
PF   13-APR-2001; 2001WO-US012245.
XX
PR   13-APR-2000; 2000US-00548797.
XX
PA   (GENO-) GENOME THERAPEUTICS CORP.
XX
PI   Keith T;
XX
DR   WPI; 2001-639428/73.
XX
PT   Isolated genes (Gene 216) from human chromosome 20p13-p12 and the
PT   proteins they encode, useful for the prevention, diagnosis and treatment
PT   of asthma, obesity and inflammatory bowel disease.
XX
PS   Example 10; Page 150; 520pp; English.
XX
CC   The invention relates to isolated genes (Gene 216) from human chromosome
CC   20p13-p12 and the proteins they encode. The nucleic acids and proteins
CC   may be used in the prevention, diagnosis and treatment of diseases
CC   associated with inappropriate Gene 216 expression. For example, the
CC   nucleic acids (or vectors) and proteins may be used to treat disorders
CC   associated with decreased expression by rectifying mutations or deletions
CC   in a patient's genome that affect the activity of gene 216 by expressing
CC   inactive proteins or to supplement the patients own production of Gene
CC   216 proteins. Additionally, the nucleic acids may be used to produce the
CC   secreted Gene 216 protein, by inserting the nucleic acids into a host
CC   cell and culturing the cell to express the protein. The nucleic acids and
CC   complementary sequences may also be used as DNA probes in diagnostic
CC   assays to detect and quantitate the presence of similar nucleic acid
CC   sequences in samples and therefore which patients may be in need of
CC   restorative therapy. The Gene 216 protein may also be used as antigens in
CC   the production of antibodies against Gene 216 and in assays to identify
CC   modulators of Gene 216 expression and activity. The anti-Gene 216
CC   antibodies and antagonists may also be used to down regulate expression
CC   and activity. The anti-Gene 216 antibodies may also be used as diagnostic
CC   agents for detecting the presence of Gene 216 proteins in samples (e.g.
CC   by enzyme linked immunosorbant assay or ELISA). Disorders that may be
CC   prevented, diagnosed and/or treated by the above methods include, for
CC   example asthma, obesity and inflammatory bowel disease. The present
CC   sequence is that of a Gene 216 related primer used in examples of the
CC   invention. The primers are used in the physical mapping of the gene
CC   (ABZ72067-ABZ72088), polymorphism identifiction using single strand
CC   conformational polymorphism (SSCP) analysis (ABZ72091-ABZ72184),
CC   sequencing (ABZ72185-ABZ72268) and genotyping (ABZ72317-ABZ72362)
XX
SQ   Sequence 18 BP; 5 A; 3 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2322 GCTGCTTGTCACCCCCA 2338
                 ||||||| ||| |||||
Db         18 GCTGCTTCTCATCCCCA 2

RESULT 4530
ABL54126
ID   ABL54126 standard; DNA; 18 BP.
XX
AC   ABL54126;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Cleavage product of FEN nuclease template Heltest4.
XX
KW   FEN; endonuclease; nuclease; template; Heltest4; nucleic acid detection;
KW   ss.
XX
OS   Synthetic.
XX
PN   US6350580-B1.
XX
PD   26-FEB-2002.
XX
PF   11-OCT-2000; 2000US-00686179.
XX
PR   11-OCT-2000; 2000US-00686179.
XX
PA   (STRA-) STRATAGENE.
XX
PI   Sorge JA;
XX
DR   WPI; 2002-380832/41.
XX
PT   Detecting a target nucleic acid in a polymerase chain reaction process
PT   comprises forming a cleavage structure by incubating with a probe having
PT   secondary structure that changes upon binding and cleaving with a
PT   nuclease to release a fragment.
XX
PS   Example 6; Col 66; 62pp; English.
XX
CC   The present sequence is the 18-nucleotide cleavage product of FEN
CC   nuclease template 1 oligonucleotide, Heltest4 (see ABL54126), which was
CC   used in a method for determining FEN endonuclease activity. Heltest4
CC   binds to M13 to produce a complementary double-stranded domain and a non-
CC   complementary 5' overhang. This duplex forms template 2. Template 3 has
CC   an additional primer, FENAS (see ABL54127), bound to M13 and is directly
CC   adjacent to Heltest4. In the presence of template 3, FENAS binds the free
CC   5' terminus of Heltest4, migrates to the junction and cleaves Heltest4 to
CC   produce the present 18-nucleotide fragment. FEN nuclease is preferred for
CC   use in the method of the invention, which relates to generating a signal
CC   to detect the presence of a target nucleic acid in a sample. In this
CC   method, a nucleic acid is treated with a probe that has a secondary
CC   structure which changes upon binding of the probe to a target nucleic
CC   acid sequence, and a nuclease. The invention also provides a process for
CC   detecting or measuring a nucleic acid that allows for concurrent
CC   amplification, cleavage and detection of a target nucleic acid sequence
CC   in a sample
XX
SQ   Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
                  |||| ||| ||||||||
Db          1 AAAATAAATAAAAAAAA 17

RESULT 4531
ABL54126/c
ID   ABL54126 standard; DNA; 18 BP.
XX
```

```
AC   ABL54126;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Cleavage product of FEN nuclease template Heltest4.
XX
KW   FEN; endonuclease; nuclease; template; Heltest4; nucleic acid detection;
KW   ss.
XX
OS   Synthetic.
XX
PN   US6350580-B1.
XX
PD   26-FEB-2002.
XX
PF   11-OCT-2000; 2000US-00686179.
XX
PR   11-OCT-2000; 2000US-00686179.
XX
PA   (STRA-) STRATAGENE.
XX
PI   Sorge JA;
XX
DR   WPI; 2002-380832/41.
XX
PT   Detecting a target nucleic acid in a polymerase chain reaction process
PT   comprises forming a cleavage structure by incubating with a probe having
PT   secondary structure that changes upon binding and cleaving with a
PT   nuclease to release a fragment.
XX
PS   Example 6; Col 66; 62pp; English.
XX
CC   The present sequence is the 18-nucleotide cleavage product of FEN
CC   nuclease template 1 oligonucleotide, Heltest4 (see ABL54126), which was
CC   used in a method for determining FEN endonuclease activity. Heltest4
CC   binds to M13 to produce a complementary double-stranded domain and a non-
CC   complementary 5' overhang. This duplex forms template 2. Template 3 has
CC   an additional primer, FENAS (see ABL54127), bound to M13 and is directly
CC   adjacent to Heltest4. In the presence of template 3, FENAS binds the free
CC   5' terminus of Heltest4, migrates to the junction and cleaves Heltest4 to
CC   produce the present 18-nucleotide fragment. FEN nuclease is preferred for
CC   use in the method of the invention, which relates to generating a signal
CC   to detect the presence of a target nucleic acid in a sample. In this
CC   method, a nucleic acid is treated with a probe that has a secondary
CC   structure which changes upon binding of the probe to a target nucleic
CC   acid sequence, and a nuclease. The invention also provides a process for
CC   detecting or measuring a nucleic acid that allows for concurrent
CC   amplification, cleavage and detection of a target nucleic acid sequence
CC   in a sample
XX
SQ   Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTT 2182
              |||||||| ||| ||||
Db         17 TTTTTTTTATTTATTTT 1


RESULT 4532
AAS97605
ID   AAS97605 standard; DNA; 18 BP.
XX
AC   AAS97605;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Murine SAC1 gene-specific oligonucleotide PCR primer #210.
XX
KW   Human; mouse; SAC1; carbohydrate; sweetener; ethanol; alcoholism; ss;
KW   obesity; diabetes; transgenic embryo; body tissue; body fluid; pancreas;
KW   blood; tongue; PCR primer; anorectic; antidiabetic; gene therapy;
KW   protein replacement therapy.
XX
OS   Mus sp.
XX
PN   WO200183749-A2.
XX
PD   08-NOV-2001.
XX
PF   25-APR-2001; 2001WO-US013387.
XX
PR   28-APR-2000; 2000US-0200794P.
PR   28-JUL-2000; 2000US-0221419P.
PR   10-NOV-2000; 2000US-0247443P.
XX
PA   (WARN ) WARNER LAMBERT CO.
PA   (MONE-) MONELL CHEM SENSES CENT.
XX
PI   Bachmanov AA,  Beauchamp GK,  Chatterjee A,  De Jong PJ,  Li S,  Li X;
PI   Ohmen JD,  Reed DR,  Ross D,  Tordoff MG;
XX
DR   WPI; 2002-075162/10.
XX
PT   Novel isolated polypeptide comprising variant form of mouse or human SAC1
PT   polypeptide, and is associated with altered preference for carbohydrates
PT   or other sweeteners, useful for preventing obesity, diabetes, alcoholism.
XX
PS   Claim 14; Page 81; 239pp; English.
XX
CC   The invention relates to an isolated polypeptide, comprising a variant
CC   form of mouse or human SAC1 polypeptide. The variant form is associated
CC   with altered preference for carbohydrates, other sweeteners or ethanol.
CC   The polypeptide and its associated DNA sequence can be produced by
CC   recombinant techniques and is useful for preventing obesity, diabetes or
CC   alcoholism associated with SAC1 expression. The sequences are useful in
CC   screening for drugs and sweeteners. Recombinant cell lines and transgenic
CC   embryos may be used in screening for and identifying agents that induce
CC   or repress function of SAC1. Predisposition to diabetes, obesity or
CC   alcoholism can be ascertained by testing any fluid or tissue of a human
CC   (such as blood, pancreas or tongue) for sequence variations of the SAC1
CC   gene. A sequence variation of the SAC1 locus may indicate a
CC   predisposition to diabetes, obesity and/or alcoholism and may provide a
CC   diagnostic mark. The polynucleotide can be detected in a biological
CC   sample by contacting the DNA with a probe to form a hybridisation complex
CC   which is then detected. The sequences represent cDNA encoding human and
CC   mouse SAC1 polypeptides and PCR primers specific for the SCA1 genes
XX
SQ   Sequence 18 BP; 4 A; 4 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        575 AGCGCCCGCAGGGATGC 591
              || ||| ||||||||||
Db          2 AGTGCCTGCAGGGATGC 18


RESULT 4533
ABL44451
ID   ABL44451 standard; DNA; 18 BP.
XX
AC   ABL44451;
XX
DT   11-APR-2002  (first entry)
XX
DE   Human chromosome 1p36-35 PCR primer SEQ ID NO:1495.
XX
KW   Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW   PCR primer; ss.
XX
OS   Homo sapiens.
XX
```

PN JP2001321190-A.
XX
PD 20-NOV-2001.
XX
PF 12-MAR-2001; 2001JP-00068285.
XX
PR 10-MAR-2000; 2000JP-00066716.
XX
PA (RIKA) RIKAGAKU KENKYUSHO.
PA (GENO-) GENOTEX YG.
XX
DR WPI; 2002-144136/19.
XX
PT Arraying genome clones.
XX
PS Claim 4; Page 34; 528pp; Japanese.
XX
CC The present invention describes a method of arraying genome clones. The
CC method comprises: (a) clones of the genomic libraries contained in
CC multiwell plates numbered for discrimination are mixed in each of the
CC multiwell plates; (b) a primer designed based on the chromosome marker
CC sequence is added to the mixture to carry out an amplification reaction;
CC (c) a signal corresponding to the marker is detected from the resultant
CC amplified product to specify the discrimination Nos. of the multiwell
CC plates containing the clones having said marker sequence; (d) the order
CC of the markers is changed so that the same discrimination Nos. succeed to
CC the maximum in the specified discrimination Nos. to array the multiwell
CC plates; (e) the clones in the multiwell plates of the specified
CC discrimination Nos. are mixed respectively in each wells of longitudinal
CC and lateral directions; (f) the mixed clones are cultured and the
CC resultant cultures are amplified by using the above primer; (g) signals
CC are detected from the amplified products; (h) the clones in the multiwell
CC plates are specified from the detected result; and (i) the clones are
CC reconstituted as the positions on the chromosome and arrayed. The
CC microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC represent PCR primers for human chromosome 21q22.1, which are
CC specifically claimed for use in the present invention
XX
SQ Sequence 18 BP; 1 A; 8 C; 3 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 607 CCTGCTGCTGCCCCACG 623
||||||| |||||| |||
Db 2 CCTGCTTCTGCCCTACG 18

RESULT 4534
ABQ78689
ID ABQ78689 standard; DNA; 18 BP.
XX
AC ABQ78689;
XX
DT 05-DEC-2002 (first entry)
XX
DE Cleavage product of Heltest4 after cleavage with FEN nuclease.
XX
KW hairpin probe; safety pin probe; assay; nucleic acid detection;
KW FEN nuclease; ss.
XX
OS Synthetic.
XX
PN US2002102591-A1.
XX
PD 01-AUG-2002.
XX
PF 17-OCT-2001; 2001US-00981621.
XX
PR 11-OCT-2000; 2000US-00686179.
XX
PA (SORG/) SORGE J A.
XX
PI Sorge JA;
XX
DR WPI; 2002-682018/73.
XX
PT Generating a signal indicating presence of a target nucleic acid, for use
PT in a polymerase chain reaction, comprises incubating target nucleic acid
PT with a probe to form a cleavage structure that is cleaved with nuclease.
XX
PS Example 6; Page 37; 62pp; English.
XX
CC The present sequence represents the cleavage product of an oligonucletide
CC used to test FEN nuclease activity. FEN nucleases are used in the course
CC of the invention. The specification describes a method for generating a
CC signal indicative of the presence of a target nucleic acid sequence in a
CC sample. The method comprises forming a cleavage structure comprising
CC duplex and single-stranded nucleic acid, by incubating the target nucleic
CC acid sequence with a probe having a secondary structure that changes upon
CC binding of the probe to the target nucleic acid sequence, and cleaving
CC the cleavable structure with a nuclease to release a nucleic acid
CC fragment. The method is useful for generating a signal indicative of the
CC presence of target nucleic acid sequence in a sample. It is useful in a
CC polymerase chain reaction (PCR)-based assay or non-PCR based assay for
CC detecting naturally occurring target nucleic acid sequences in a solution
CC including RNA and DNA that is isolated and purified from cells, tissues,
CC single cell organisms, bacteria or viruses, and for detecting synthetic
CC targets in solution, including RNA or DNA oligonucleotides, and peptide
CC nucleic acids
XX
SQ Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAA 2802
|||| ||| ||||||||
Db 1 AAAATAAATAAAAAAAA 17

RESULT 4535
ABQ78689/c
ID ABQ78689 standard; DNA; 18 BP.
XX
AC ABQ78689;
XX
DT 05-DEC-2002 (first entry)
XX
DE Cleavage product of Heltest4 after cleavage with FEN nuclease.
XX
KW hairpin probe; safety pin probe; assay; nucleic acid detection;
KW FEN nuclease; ss.
XX
OS Synthetic.
XX
PN US2002102591-A1.
XX
PD 01-AUG-2002.
XX
PF 17-OCT-2001; 2001US-00981621.
XX
PR 11-OCT-2000; 2000US-00686179.
XX
PA (SORG/) SORGE J A.
XX
PI Sorge JA;
XX
DR WPI; 2002-682018/73.
XX
PT Generating a signal indicating presence of a target nucleic acid, for use
PT in a polymerase chain reaction, comprises incubating target nucleic acid
PT with a probe to form a cleavage structure that is cleaved with nuclease.

XX
PS Example 6; Page 37; 62pp; English.
XX
CC The present sequence represents the cleavage product of an oligonucletide
CC used to test FEN nuclease activity. FEN nucleases are used in the course
CC of the invention. The specification describes a method for generating a
CC signal indicative of the presence of a target nucleic acid sequence in a
CC sample. The method comprises forming a cleavage structure comprising
CC duplex and single-stranded nucleic acid, by incubating the target nucleic
CC acid sequence with a probe having a secondary structure that changes upon
CC binding of the probe to the target nucleic acid sequence, and cleaving
CC the cleavable structure with a nuclease to release a nucleic acid
CC fragment. The method is useful for generating a signal indicative of the
CC presence of target nucleic acid sequence in a sample. It is useful in a
CC polymerase chain reaction (PCR)-based assay or non-PCR based assay for
CC detecting naturally occurring target nucleic acid sequences in a solution
CC including RNA and DNA that is isolated and purified from cells, tissues,
CC single cell organisms, bacteria or viruses, and for detecting synthetic
CC targets in solution, including RNA or DNA oligonucleotides, and peptide
CC nucleic acids
XX
SQ Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTTT 2182
||||||||| ||| ||||
Db 17 TTTTTTTTATTTATTTT 1

RESULT 4536
ABS52682/c
ID ABS52682 standard; DNA; 18 BP.
XX
AC ABS52682;
XX
DT 15-NOV-2002 (first entry)
XX
DE mRNA display splint oligonucleotide.
XX
KW Translation; ss; splint; cell-free translation system; insulin;
KW growth hormone; erythropoietin; ribosome display; mRNA display.
XX
OS Synthetic.
XX
PN WO200259293-A2.
XX
PD 01-AUG-2002.
XX
PF 25-JAN-2002; 2002WO-US002344.
XX
PR 25-JAN-2001; 2001US-0264147P.
XX
PA (FORS/) FORSTER A C.
PA (BLAC/) BLACKLOW S C.
XX
PI Forster AC, Blacklow SC;
XX
DR WPI; 2002-608454/65.
XX
PT A new reconstituted cell-free translation system comprising translation
PT factors and tRNA species capable of translating exogenously added mRNAs,
PT useful for the synthesis of peptides or protein ligands or catalysts,
PT e.g. insulin.
XX
PS Disclosure; Page 15; 83pp; English.
XX
CC This invention relates to a novel reconstituted cell-free translation
CC system comprising translation factors and transfer ribonucleic acid
CC (tRNA) species which translate exogenously added messenger RNA (mRNA)
CC with highly selective incorporation at each codon to form a peptide or a
CC peptidomimetic product when the system includes one or more tRNA species
CC charged with a synthetic amino acid or amino acid analogue. The
CC translation system of the invention is useful for the synthesis of
CC peptide or protein ligands or catalysts, such as insulin, growth hormone
CC or erythropoietin, and for pure ribosome display and pure mRNA display
CC selection experiments. The translation process provides a simplified,
CC highly purified system that offers potentially improved routes to all
CC peptides and proteins currently synthesised by alternative routes. This
CC overcomes the limitations of the prior art, e.g. difficulty in
CC maintaining purified components and trace contaminants or inefficient
CC processivity. There are several advantages associated with performing
CC peptide and protein display in a pure system, such as an expected lack of
CC post-translational modification of peptides, lack of proteases which
CC often cause protein degradation problem and a lack of competition from
CC contaminants in the selection steps. The present sequence represents a
CC splint oligonucleotide used in the mRNA display method used in the
CC invention
XX
SQ Sequence 18 BP; 4 A; 2 C; 0 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2778 TAGAATTGAAAAAAAAA 2794
| ||||| |||||||||
Db 17 TTGAATTAAAAAAAAAA 1

RESULT 4537
AAS95764
ID AAS95764 standard; DNA; 18 BP.
XX
AC AAS95764;
XX
DT 14-FEB-2002 (first entry)
XX
DE Human adenine nucleotide translocator (ANT)-related PCR primer #13.
XX
KW Human; adenine nucleotide translocator; ANT; ss; PCR primer;
KW mitochondrial matrix protein.
XX
OS Synthetic.
XX
PN WO200185944-A2.
XX
PD 15-NOV-2001.
XX
PF 11-MAY-2001; 2001WO-US015416.
XX
PR 11-MAY-2000; 2000US-00569327.
XX
PA (MITO-) MITOKOR.
XX
PI Anderson CM, Davis RE, Clevenger W, Wiley SE, Miller SW;
PI Szabo TR, Ghosh SS, Moos WH, Pei Y, Carroll AK;
XX
DR WPI; 2002-055598/07.
XX
PT Novel recombinant expression construct for producing adenine nucleotide
PT translocator polypeptides, comprises a regulated promoter linked to
PT nucleic acid encoding the polypeptide.
XX
PS Disclosure; Page 140; 147pp; English.
XX
CC The invention relates to a recombinant expression construct (I)
CC comprising a regulated promoter operably linked to a nucleic acid
CC encoding an adenine nucleotide translocator (ANT) polypeptide. ANT
CC proteins mediate the exchange of ATP synthesised in the mitochondrial
CC matrix for ADP in the cytosol. (I) is useful for producing recombinant
CC ANT polypeptide by transforming a prokaryotic or eukaryotic host cell and
CC culturing the host cell. (I) is also useful for targeting a polypeptide
CC of interest to a mitochondrial membrane, where ANT polypeptide is

```
CC   expressed as a fusion protein with the polypeptide of interest.
CC   Recombinant ANT polypeptide, or cells expressing the polypeptide, is
CC   useful for identifying an agent that binds to an ANT polypeptide. ANT
CC   ligand is useful for determining the presence of an ANT polypeptide,
CC   preferably ANT1, ANT2 or ANT3 in a biological sample and for isolating
CC   ANT from a biological sample, where the ANT ligand is covalently or non-
CC   covalently bound to a solid phase. Detectably labeled ANT ligand is also
CC   useful for identifying an agent that interacts with an ANT polypeptide.
CC   AAS95746-AAS95783 represent human ANT PCR primers and related primers of
CC   the invention. Note: Primers AAS9550-AAS9551 and AAS95754-AAS95771 are
CC   not described in the specification
XX
SQ   Sequence 18 BP; 5 A; 3 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1129 TGAAGCCGAATTTCCTA 1145
              ||||||  |||  ||||||
Db          1 TGAAGCGGAAGTTCCTA 17


RESULT 4538
ABK94050
ID   ABK94050 standard; DNA; 18 BP.
XX
AC   ABK94050;
XX
DT   27-AUG-2002  (first entry)
XX
DE   Cardiovascular regulatory gene promoter PCR primer #2.
XX
KW   Endothelin; EDN; endothelin converting enzyme; ECE; endothelin receptor;
KW   EDNR; signaling system; cardiovascular disease; coronary heart disease;
KW   hypertension; atherosclerosis; angiogenesis; fatty acid metabolism;
KW   diabetes; familial hypercholesterolaemia; forensic marker;
KW   transgenic animal; solid support; cardiovascular regulator; PCR; primer;
KW   ss.
XX
OS   Synthetic.
XX
PN   WO200224747-A2.
XX
PD   28-MAR-2002.
XX
PF   31-AUG-2001; 2001WO-EP010087.
XX
PR   19-SEP-2000; 2000EP-00120123.
XX
PA   (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
XX
PI   Brinkmann U,  Hoffmeyer S;
XX
DR   WPI; 2002-435060/46.
XX
PT   Novel polynucleotide of the endothelin/endothelin converting
PT   enzyme/receptors of endothelin and endothelin converting enzyme signaling
PT   system associated with cardiovascular disease, useful for treating the
PT   disease.
XX
PS   Example 6; Page 53; 190pp; English.
XX
CC   The invention describes a polynucleotide (I) of the endothelin
CC   (EDN)/endothelin converting enzyme (ECE)/receptors of EDN and ECE (EDNR)
CC   signaling system which is associated with a cardiovascular disease. (I),
CC   the gene encoding EDN, ECE or EDNR (II) or a vector (III) expressing (I)
CC   or (II) is useful for producing cells capable of expressing a molecular
CC   variant polypeptide which is associated with a cardiovascular disease.
CC   (II), (III), the EDN, ECE or EDNR polypeptide, or a cell expressing a
CC   molecular variant gene comprising (I) is useful for identifying and
CC   obtaining a pro-drug or drug capable of modulating the activity of a
CC   molecular variant of a polypeptide of the EDN/EDNR/ECE signaling system
CC   or its gene product, or for identifying and obtaining an inhibitor of the
CC   activity of a molecular variant of a polypeptide of the EDN/EDNR/ECE
CC   signaling system or its gene product. The isolated proteins and
CC   polynucleotides encoding them are useful for preparation of a
CC   pharmaceutical composition for treating a cardiovascular disease such as
CC   coronary heart disease, hypertension, atherosclerosis, or related to
CC   abnormal angiogenesis or fatty acid metabolism e.g. diabetes and familial
CC   hypercholesterolaemia. The gene or a polynucleotide fragment of the
CC   EDN/ECE/EDNR signaling system are useful as forensic markers, for
CC   creating a transgenic animal and in creation of a solid support
CC   comprising polynucleotides, genes, vectors, polypeptides, antibodies or
CC   host cells of the invention. This sequence represents a PCR primer used
CC   to isolate a cardiovascular regulator polynucleotide from DNA encoding
CC   members of the EDN/ECE/EDNR signaling pathway
XX
SQ   Sequence 18 BP; 2 A; 9 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         63 GCGGCAGACGCCTGGTC 79
              ||  |||||||||||||
Db          1 GCCCCAGACGCCTGGTC 17


RESULT 4539
AAD41291
ID   AAD41291 standard; DNA; 18 BP.
XX
AC   AAD41291;
XX
DT   30-OCT-2002  (first entry)
XX
DE   Human C6ST gene amplifying 3' PCR primer #1.
XX
KW   Human; chondroitin 6-sulfotransferase; C6ST; chondroitin 6-sulphate; C6S;
KW   biological function; extracellular matrix; atherosclerosis; therapeutic;
KW   gene expression; enzyme; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US6399358-B1.
XX
PD   04-JUN-2002.
XX
PF   29-JAN-1998;   98US-00015188.
XX
PR   31-MAR-1997;   97US-0037019P.
PR   02-JUL-1997;   97US-0052745P.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Williams KJ,  Tabas I;
XX
DR   WPI; 2002-535977/57.
XX
PT   Novel recombinant human chondroitin 6-sulfotransferase polynucleotide
PT   segment, useful in molecular study of human extracellular matrix, and for
PT   studying biological functions of chondroitin 6-sulfate.
XX
PS   Disclosure; Col 18; 15pp; English.
XX
CC   The present invention relates to human chondroitin 6-sulfotransferase
CC   (C6ST) proteins and polynucleotides encoding such proteins. Sequences of
CC   the invention are useful in the molecular study of human extracellular
CC   matrix, for studying the biological functions of chondroitin 6-sulphate
CC   (C6S), in screening test for detecting C6ST polymorphs, for ascertaining
CC   and evaluating the role C6ST plays in atherosclerosis and for identifying
CC   potential therapeutics, i.e., inhibitors of enzyme or modulators of gene
CC   expression. The present DNA sequence is a PCR primer which is used for
CC   amplifying human C6ST gene
XX
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```
SQ   Sequence 18 BP; 3 A; 1 C; 9 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        998 TTGCGGGAGAAGTTGGA 1014
              ||||||||||  |||| |
Db          1 TTGCGGGAGAGGTTGTA 17


RESULT 4540
ABK87302
ID   ABK87302 standard; DNA; 18 BP.
XX
AC   ABK87302;
XX
DT   24-SEP-2002  (first entry)
XX
DE   FEN 1 nuclease cleavage product.
XX
KW   ss; nucleic acid detection; FEN nuclease.
XX
OS   Synthetic.
XX
PN   WO200244326-A2.
XX
PD   06-JUN-2002.
XX
PF   26-NOV-2001; 2001WO-US044215.
XX
PR   30-NOV-2000; 2000US-00728574.
XX
PA   (STRA-) STRATAGENE.
XX
PI   Sorge JA,  Whalen AM;
XX
DR   WPI; 2002-508503/54.
XX
PT   Detecting/measuring target nucleic acid, by forming cleavage structure by
PT   incubating target nucleic acid with probe having binding moiety, cleaving
PT   structure to release nucleic acid and detecting released fragments.
XX
PS   Disclosure; Page 38; 157pp; English.
XX
CC   This invention relates to a novel method for detecting/measuring a target
CC   nucleic acid. The method comprises forming a cleavage structure by
CC   incubating the target sequence with a probe comprising a binding moiety
CC   and a secondary structure that changes upon binding of the probe to the
CC   target, cleaving the cleavage structure to release a nucleic acid
CC   fragment, and detecting and/or measuring the fragment captured by binding
CC   of the binding moiety to a capture element on a solid support. The method
CC   of the invention is useful for detecting or measuring a target nucleic
CC   acid and are useful for generating a signal indicative of the presence of
CC   the target nucleic acid in a sample. Another method of the invention is
CC   useful for simultaneously forming a cleavage structure, amplifying the
CC   target nucleic acid in a sample and cleaving the cleavage structure. The
CC   method does not require multiple steps, subsequent amplification process,
CC   and allows for concurrent amplification and detection of target nucleic
CC   acid in a sample. The present sequence represents a cleavage product
CC   generated by FEN 1 nuclease shown in an example of the method of the
CC   invention
XX
SQ   Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||  |||  ||||||||
Db          1 AAAATAAATAAAAAAAA 17


RESULT 4541
ABK87302/c
ID   ABK87302 standard; DNA; 18 BP.
XX
AC   ABK87302;
XX
DT   24-SEP-2002  (first entry)
XX
DE   FEN 1 nuclease cleavage product.
XX
KW   ss; nucleic acid detection; FEN nuclease.
XX
OS   Synthetic.
XX
PN   WO200244326-A2.
XX
PD   06-JUN-2002.
XX
PF   26-NOV-2001; 2001WO-US044215.
XX
PR   30-NOV-2000; 2000US-00728574.
XX
PA   (STRA-) STRATAGENE.
XX
PI   Sorge JA,  Whalen AM;
XX
DR   WPI; 2002-508503/54.
XX
PT   Detecting/measuring target nucleic acid, by forming cleavage structure by
PT   incubating target nucleic acid with probe having binding moiety, cleaving
PT   structure to release nucleic acid and detecting released fragments.
XX
PS   Disclosure; Page 38; 157pp; English.
XX
CC   This invention relates to a novel method for detecting/measuring a target
CC   nucleic acid. The method comprises forming a cleavage structure by
CC   incubating the target sequence with a probe comprising a binding moiety
CC   and a secondary structure that changes upon binding of the probe to the
CC   target, cleaving the cleavage structure to release a nucleic acid
CC   fragment, and detecting and/or measuring the fragment captured by binding
CC   of the binding moiety to a capture element on a solid support. The method
CC   of the invention is useful for detecting or measuring a target nucleic
CC   acid and are useful for generating a signal indicative of the presence of
CC   the target nucleic acid in a sample. Another method of the invention is
CC   useful for simultaneously forming a cleavage structure, amplifying the
CC   target nucleic acid in a sample and cleaving the cleavage structure. The
CC   method does not require multiple steps, subsequent amplification process,
CC   and allows for concurrent amplification and detection of target nucleic
CC   acid in a sample. The present sequence represents a cleavage product
CC   generated by FEN 1 nuclease shown in an example of the method of the
CC   invention
XX
SQ   Sequence 18 BP; 15 A; 0 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTT 2182
              ||||||||  |||  ||||
Db         17 TTTTTTTTATTTATTTT 1


RESULT 4542
ABK98126/c
ID   ABK98126 standard; DNA; 18 BP.
XX
AC   ABK98126;
XX
DT   07-OCT-2002  (first entry)
XX
DE   Triple helix forming associated oligonucleotide #15.
```

XX
KW Triple-helix formation; purine-rich target sequence; double-helix DNA;
KW gene expression; regulatory sequence; pathogenic double-stranded DNA;
KW pathogenic bacteria; virus; replication; virulence; cancer;
KW oncogene suppression; cancerous cell; cytostatic; antimicrobial; ss.
XX
OS Synthetic.
XX
PN US6403302-B1.
XX
PD 11-JUN-2002.
XX
PF 16-DEC-1993; 93US-00168920.
XX
PR 17-SEP-1992; 92US-00946976.
XX
PA (CALY) CALIFORNIA INST OF TECHNOLOGY.
XX
PI Dervan PB, Beal PA;
XX
DR WPI; 2002-536030/57.
XX
PT A triple-helix comprising a double helical nucleic acid (DHNA) and an
PT oligonucleotide which binds in parallel and antiparallel orientation,
PT respectively, for targetting sequences on alternate strands of DHNA to
PT control gene expression.
XX
PS Example 7; Col 41; 108pp; English.
XX
CC The present invention relates to methods and oligonucleotides for forming
CC a triple-helix comprising a double helical nucleic acid comprising first
CC and second substantially complementary strands, and an oligonucleotide
CC bound to a purine-rich target sequence within the double helical nucleic
CC acid, where the oligonucleotide binds in a parallel and antiparallel
CC orientation, respectively, to target sequences on alternate strands of
CC the double helical nucleic acid. The method has therapeutic applications,
CC where gene expression is controlled by selective triple-helix formation
CC within expression regulatory sequences of a target gene. The
CC oligonucleotides can be used to form triple-helices, and are useful to
CC detect the presence or absence of specific sequences within genomic DNA
CC for diagnostic and therapeutic purposes. The oligonucleotides can be
CC selected to specifically bind to pathogenic double-stranded DNA including
CC specific sequences required by pathogenic bacteria or viruses for
CC replication or virulence, reducing their pathogenicity. Alternatively,
CC the oligonucleotide can be chosen to target a unique sequence of the
CC pathogen which is not found in the genome of pathogen's host. The
CC oligonucleotides can be used in cancer treatment by way of triple-helix
CC suppression of specific oncogenes including those of endogenous or viral
CC origin. Such therapeutic oligonucleotides are capable of forming triple-
CC helices with such sequences in cancerous cells containing the activated
CC oncogene, so preferentially killing or repressing the cancer causing
CC cell. The present sequence represents an oligonucleotide used in the
CC methods of the present invention
XX
SQ Sequence 18 BP; 0 A; 2 C; 0 G; 14 T; 0 U; 2 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 82.4%; Pred. No. 3.6e+03;
Matches 14; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAAA 2801
||||||:| ||||:|||
Db 17 GAAAAAHAGAAAAHAAA 1

RESULT 4543
ABX75115/c
ID ABX75115 standard; DNA; 18 BP.
XX
AC ABX75115;
XX
DT 25-MAR-2003 (first entry)
XX
DE Human gene 216 sequence containing SNP #10.
XX
KW Human; mouse; ds; gene 216; antiasthmatic; antiinflammatory; anorectic;
KW chromosome 20p13-p12; single nucleotide polymorphism; SNP; gene therapy;
KW respiratory disease; asthma; obesity; bronchial hyper-responsiveness;
KW chronic obstructive pulmonary disease;
KW adult respiratory distress syndrome; inflammatory bowel syndrome.
XX
OS Homo sapiens.
XX
PN WO200283077-A2.
XX
PD 24-OCT-2002.
XX
PF 15-APR-2002; 2002WO-US012063.
XX
PR 13-APR-2001; 2001US-00834597.
PR 13-APR-2001; 2001WO-US012245.
XX
PA (SCHE) SCHERING CORP.
PA (GENO-) GENOME THERAPEUTICS CORP.
XX
PI Keith T, Little RD, Van Eerdewegh P, Dupuis J, Del Mastro RG;
PI Simon J, Allen K, Pandit S;
XX
DR WPI; 2003-092960/08.
XX
PT New isolated gene 216 nucleic acids, useful for diagnosing, preventing or
PT treating a disorder, such as asthma, bronchial hyper-responsiveness,
PT chronic obstructive pulmonary disease, obesity or inflammatory bowel
PT syndrome.
XX
PS Disclosure; Page 588; 650pp; English.
XX
CC This invention relates to a novel isolated nucleic acid, gene 216,
CC identified from human chromosome 20p13-p12. The invention also discloses
CC regions of the 216 gene that contain single nucleotide polymorphisms
CC (SNP's) which may be used as markers for disease susceptibility or
CC severity. The nucleotides of the invention may have antiasthmatic,
CC antiinflammatory or anorectic activities and may be used in gene therapy.
CC The nucleic acids, antibodies or its fragments are useful for diagnosing,
CC preventing or treating a disorder, such as respiratory diseases (e.g.
CC asthma, bronchial hyper-responsiveness, chronic obstructive pulmonary
CC disease or adult respiratory distress syndrome), obesity, or inflammatory
CC bowel syndrome. The nucleic acids are also useful for identifying
CC increased susceptibility of a subject to the disorders mentioned. The
CC nucleic acids can also be used as primers and templates for the
CC recombinant production of disorder-associated peptides or polypeptides,
CC for chromosome and gene mapping, or for tissue distribution studies. The
CC present sequence represents a gene 216 DNA sequence used in the scope of
CC the invention
XX
SQ Sequence 18 BP; 5 A; 3 C; 8 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 3.6e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2322 GCTGCTTGTCACCCCCA 2338
||||||| ||| |||||
Db 18 GCTGCTTCTCATCCCCA 2

RESULT 4544
ABV75014/c
ID ABV75014 standard; DNA; 18 BP.
XX
AC ABV75014;
XX
DT 04-FEB-2003 (first entry)
XX
DE Nucleotide sequence of a PCR oligo M8.
XX

```
KW   Molecular clasp; transducer; effector; diagnostic; drug discovery; PCR;
KW   primer; ss.
XX
OS   Synthetic.
XX
PN   WO200279387-A2.
XX
PD   10-OCT-2002.
XX
PF   28-MAR-2002; 2002WO-US010171.
XX
PR   28-MAR-2001; 2001US-0279524P.
PR   28-NOV-2001; 2001US-00995847.
XX
PA   (ENGE-) ENGENEOS INC.
XX
PI   Rizzuto CD, Afeyan NB, Lee FD, Church GM, Gupta RD, Schwartz JJ;
PI   Zhang B, Lugovskoy AA;
XX
DR   WPI; 2003-040675/03.
XX
PT   New modular molecular clasps, useful in health care industry, e.g. in
PT   therapy, in clinical diagnostics, in vivo imaging or in drug discovery,
PT   environmental diagnostics, industrial diagnostics, food safety or
PT   toxicology.
XX
PS   Example 2; Page 40; 63pp; English.
XX
CC   The invention relates to a modular molecular clasp (I) comprising several
CC   heterologous components including a molecular recognition element, an
CC   effector, and a transducer. The transducer is constructed to facilitate
CC   allosteric alteration of (I) in response to ligand binding to the
CC   molecular recognition element, producing a detectable change in an
CC   activity of the effector. The transducer may comprise a pair of
CC   polypeptides that form a non-covalently bound complex in response to
CC   ligand binding, or in the absence of ligand binding to the molecular
CC   recognition element. The modular molecular clasps, arrays and biosensors
CC   are useful in health care industry, e.g. in therapy, in clinical
CC   diagnostics, in vivo imaging or in drug discovery. The clasps can also be
CC   used in environmental diagnostics, industrial diagnostics, food safety,
CC   toxicology, catalysis of reactions or high-throughput screening, as well
CC   as in agricultural industry and in basic research. The clasps are useful
CC   in prodrug therapy, in studying the relationship between a subject's
CC   protein expression profile and the subject's response to a foreign
CC   compound or drug. Sequences ABV75007-5027 represent oligonucleotides used
CC   in PCR reactions for creating a CFP-YFP vector for molecular cloning of
CC   engineered single chain antibodies containing variable linker regions
XX
SQ   Sequence 18 BP; 4 A; 5 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         74 CTGGTCACCGTGACCCC 90
               ||||||||||||| | |
Db         18 CTGGTCACCGTGAGCTC 2


RESULT 4545
ADE39920
ID   ADE39920 standard; DNA; 18 BP.
XX
AC   ADE39920;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human Midkine intron 3 DNA fragment.
XX
KW   Midkine; MK; colorectal cancer; SNP; single nucleotide polymorphism;
KW   human; ds; intron 3.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   variation       replace(10,T)
FT                   /*tag=  a
FT                   /standard_name= "Single nucleotide polymorphism"
FT                   /note= "SNP variant is associated with cancer"
XX
PN   EP1314787-A2.
XX
PD   28-MAY-2003.
XX
PF   22-NOV-2002; 2002EP-00026076.
XX
PR   26-NOV-2001; 2001JP-00359503.
XX
PA   (KUDO/) KUDOH N.
XX
PI   Shinozawa T, Ahmed KM, Shitara Y, Kuwano H, Takenoshita S;
XX
DR   WPI; 2003-620030/59.
XX
PT   Calculating the risk of developing cancer e.g. colorectal cancer,
PT   comprises obtaining a sample derived from an individual, analyzing
PT   polymorphisms of the Midkine gene and calculating the risk of developing
PT   cancer based on the polymorphisms.
XX
PS   Disclosure; Fig 1; 19pp; English.
XX
CC   The invention relates to a novel method of calculating the risk of onset
CC   of cancer in an individual comprising obtaining a sample derived from the
CC   individual, analysing polymorphisms of the Midkine (MK) gene and
CC   calculating the risk of onset of cancer based on the polymorphisms. The
CC   method, program, calculating device and DNA micro array of the invention
CC   may be useful for calculating the risk of colorectal cancer in an
CC   individual. The current sequence is that of the human Midkine intron 3
CC   DNA fragment of the invention.
XX
SQ   Sequence 18 BP; 1 A; 5 C; 10 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 3.6e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        113 GGCTGGGGGGATCCTGG 129
                | |||||||||| |||||
Db          1 GCCTGGGGGGACCCTGG 17


RESULT 4546
AAQ20028
ID   AAQ20028 standard; DNA; 19 BP.
XX
AC   AAQ20028;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 114 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
```

```
FT   misc_feature    14. .19
FT                   /*tag=  c
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   18
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   19
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine group. See also AAQ20026-Q20030
XX
SQ   Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2171 TTTTTTTTTTTTTTTA 2187
              || ||||||||| ||||
Db          2 TTATTTTTTTTTATTTA 18


RESULT 4547
AAQ20029
ID   AAQ20029 standard; DNA; 19 BP.
XX
AC   AAQ20029;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 115 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
```

```
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   misc_feature    14. .19
FT                   /*tag=  c
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   18
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   19
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine groups. See also AAQ20026-Q20030
XX
SQ   Sequence 19 BP; 3 A; 2 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2165 CTTTTTTTTTTTTTTT 2181
              ||| ||||||||| |||
Db          1 CTTATTTTTTTTTATTT 17


RESULT 4548
AAQ30375
ID   AAQ30375 standard; DNA; 19 BP.
XX
AC   AAQ30375;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
```

```
DE   Oligomer HUM beta 115 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N4 N4 ethanocytosine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   misc_feature    13. .14
FT                   /*tag=  g
FT                   /note= "o-xyloso dimer synthon linkage"
FT   misc_feature    14. .20
FT                   /*tag=  f
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N4 N4 ethanocytosine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 19 BP; 3 A; 2 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2165 CTTTTTTTTTTTTTTT 2181
                ||| ||||||||| |||
Db          1 CTTATTTTTTTTTATTT 17


RESULT 4549
AAQ30374
ID   AAQ30374 standard; DNA; 19 BP.
XX
AC   AAQ30374;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 114 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   misc_feature    13. .14
FT                   /*tag=  g
FT                   /note= "o-xyloso dimer synthon linkage"
FT   misc_feature    14. .20
FT                   /*tag=  f
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N4 N4 ethanocytosine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
```

XX
PI Froehler B, Krawczyk S, Matteucci MD, Milligan J;
XX
DR WPI; 1992-217083/26.
XX
PT New oligomers contg. modified bases - which form a triplex with G-C
PT doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT herpes malignancy and inflammation.
XX
PS Claim 12; Page 70; 77pp; English.
XX
CC The synthetic oligomer is capable of forming a triplex at physiological
CC pH with a purine rich target sequence by coupling into the major groove
CC of the duplex. The specific target sequence of this oligomer is the human
CC interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC rich sequence concd. on one strand of the duplex. The oligomer, and
CC others like it are useful in diagnosis and therapy of diseases
CC characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC hepatitis B, herpes, malignant tumours and inflammation. The triple
CC helices form under mild conditions thus assays may be carried out without
CC subjecting the test specimen to harsh conditions. The oligomer contains
CC an inverted polarity region formed from an o-xyloso dimer synthon. The
CC linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC a xylene residue to form the dimer synthon. This additional modifications
CC may render the oligomer stable to nuclease activity. The oligomer is able
CC to inhibit gene expression, as verified by in vitro systems. See also
CC AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC field.)
XX
SQ Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2171 TTTTTTTTTTTTTTTA 2187
              || ||||||||| ||||
Db          2 TTATTTTTTTTTATTTA 18
```

RESULT 4550
AAQ39059
ID AAQ39059 standard; DNA; 19 BP.
XX
AC AAQ39059;
XX
DT 25-MAR-2003 (revised)
DT 03-AUG-1993 (first entry)
XX
DE S. nodosus 2634bp BamHI fragment PCR primer P91.
XX
KW snoT; snoD; snoM; microbial synthesis; actinomyces; hybrid; glycosylated;
KW natural products; prods; Streptomyces nodosus; polymerase chain reaction;
KW secondary metabolite biosynthesis; sequencing; ss.
XX
OS Synthetic.
XX
PN WO9306219-A1.
XX
PD 01-APR-1993.
XX
PF 15-SEP-1992; 92WO-EP002111.
XX
PR 18-SEP-1991; 91DE-04130967.
XX
PA (FARH) HOECHST AG.
XX
PI Piepersberg W, Stockmann M, Taleghani KM, Distler J, Grabley S;
PI Sichel P, Braeu B;
XX
DR WPI; 1993-117540/14.
XX
PT Sec. metabolite biosynthesis genes from Actinomycetes - isolatable with
PT hybridisation probes using DNA, useful in microbial synthesis of
PT glycosylated and natural prods. in Actinomyces.
XX
PS Example; Page 21; 38pp; German.
XX
CC The sequence is that of a PCR primer P91 which was used in the DNA
CC sequencing of a 2634 bp Bam HI fragment (AAQ39093) which comprises the
CC complete snoT sequence (encoding amphotheronolide B-dTDP-D- mycosaminyl
CC transferase), the snoD sequence (encodes dTDP-D-glucose synthase) and the
CC partial snoM sequence (encoding dTDP-4-keto-6- deoxy-D-glucose
CC isomerase). (Updated on 25-MAR-2003 to correct PN field.) (Updated on 25-
CC MAR-2003 to correct PI field.)
XX
SQ Sequence 19 BP; 5 A; 8 C; 4 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        243 ATCCGCGGGTCCCCCAC 259
              |||||| ||||| ||||
Db          1 ATCCGCAGGTCCACCAC 17
```

RESULT 4551
AAT49298
ID AAT49298 standard; RNA; 19 BP.
XX
AC AAT49298;
XX
DT 27-AUG-2003 (revised)
DT 27-AUG-1997 (first entry)
XX
DE 5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW electrophoresis; substrate cleavage; ss.
XX
OS Alfalfa mosaic virus.
XX
PN WO9640993-A1.
XX
PD 19-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US008320.
XX
PR 07-JUN-1995; 95US-00487759.
XX
PA (MERI) MERCK & CO INC.
XX
PI Cole JL, Kuo LC, Olsen DB;
XX
DR WPI; 1997-052364/05.
XX
PT Detection of influenza virus endonuclease in a sample - by cleavage of an
PT RNA substrate to generate a primer for a labelled polymerase extension
PT reaction.
XX
PS Claim 6; Page 12; 28pp; English.
XX
CC This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA. This
CC sequence was used as a substrate for influenza endonuclease in the method
CC of the invention. The method allows detection of influenza endonuclease
CC activity in a sample and comprises: (a) adding an influenza endonuclease
CC substrate to a sample to generate an RNA product; (b) hybridising the RNA
CC prod. with a DNA template which comprises a first segment complementary
CC to the RNA and a 5' extension of at least one nucleotide attached to the
CC 5' end of the DNA segment, such that a DNA:RNA hybrid is formed; (c)
CC adding a DNA polymerase and labelled mononucleotides such that the DNA
CC polymerase incorporates the mononucleotides to the 3' end of the RNA in
CC the RNA:DNA duplex; and (d) measuring the amount of labelled hybrid prod.
CC as a measure of the amount of influenza endonuclease activity. The method

```
CC   is used to quantitate the amount of influenza endonuclease by cleaving
CC   the RNA substrate which then forms a primer for extension by a DNA
CC   polymerase on a template. The assay does not involve an electrophoresis
CC   step and thus may be run in a 96-well microtitre plate. The assay also
CC   monitors substrate cleavage at the correct position thereby
CC   discriminating against non-specific cleavage products. (Updated on 27-AUG
CC   -2003 to correct OS field.)
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4552
AAT74905
ID   AAT74905 standard; RNA; 19 BP.
XX
AC   AAT74905;
XX
DT   27-AUG-2003  (revised)
DT   27-AUG-1997  (first entry)
XX
DE   5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW   Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW   electrophoresis; substrate cleavage; ss.
XX
OS   Alfalfa mosaic virus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= Triphosphorylated-G
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-OMe-U
XX
PN   WO9640994-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008330.
XX
PR   07-JUN-1995;   95US-00487760.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-052365/05.
XX
PT   Detection of enzyme pref. endonuclease or ribozyme, in a sample - by
PT   cleavage of an RNA substrate to generate a primer for a labelled
PT   polymerase extension reaction.
XX
PS   Example; Page 14; 34pp; English.
XX
CC   This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA. This
CC   sequence was used in the method of the invention for detecting the enzyme
CC   activity in a sample. The method comprises: (a) adding an oligonucleotide
CC   substrate to a sample to generate an oligonucleotide product; (b)
CC   hybridising the oligonucleotide prod. with a DNA template which comprises
CC   a first segment complementary to the oligonucleotide and a 5' extension
CC   of at least one nucleotide attached to the 5' end of the DNA segment,
CC   such that a DNA:RNA hybrid or a DNA:DNA duplex is formed; (c) adding a
CC   DNA polymerase and labelled mononucleotides such that the DNA polymerase
CC   incorporates the mononucleotides to the 3' end of the oligonucleotide;
CC   and (d) measuring the amt. of labelled hybrid prod. as a measure of the
CC   amt. of the enzyme activity in the sample. The method is used to assay
CC   for enzymes e.g. endonuclease, exonuclease or ribozymes, that act on
CC   substrates to generate single stranded oligonucleotide prods. by cleaving
CC   the substrate which then forms a primer for extension by a DNA polymerase
CC   on a template. It can be used to identify the position where the enzyme
CC   cleaves the substrate. The assay can also be used to screen for
CC   inhibitors of these enzymes. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4553
AAT47271
ID   AAT47271 standard; RNA; 19 BP.
XX
AC   AAT47271;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #5.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   6
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base   12
FT                   /*tag=  d
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligcnucleotide with a phosphate addition agent to form a RNA or analogue
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CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4554
AAT47276
ID   AAT47276 standard; RNA; 19 BP.
XX
AC   AAT47276;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #8.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4555
AAT47269
ID   AAT47269 standard; RNA; 19 BP.
XX
AC   AAT47269;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #3.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxyadenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
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CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4556
AAT47279
ID   AAT47279 standard; RNA; 19 BP.
XX
AC   AAT47279;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #11.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   12
FT                   /*tag=  c
FT                   /mod_base= phosphorothioated
FT   modified_base   13
FT                   /*tag=  d
FT                   /mod_base= phosphorothioated
FT   modified_base   14
FT                   /*tag=  e
FT                   /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4557
AAT47277
ID   AAT47277 standard; RNA; 19 BP.
XX
AC   AAT47277;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #9.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
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CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4558
AAT47273
ID   AAT47273 standard; RNA; 19 BP.
XX
AC   AAT47273;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #7.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   misc_feature    19
FT                   /*tag=  c
FT                   /note= "biotin labelled for attachment to solid support"
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4559
AAT47264
ID   AAT47264 standard; RNA; 19 BP.
XX
AC   AAT47264;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 12; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
```

```
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4560
AAT47272
ID   AAT47272 standard; RNA; 19 BP.
XX
AC   AAT47272;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #6.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   6
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base   12
FT                   /*tag=  d
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base   13
FT                   /*tag=  e
FT                   /mod_base= 2'-deoxy-2'-fluoro-adenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4561
AAT47278
ID   AAT47278 standard; RNA; 19 BP.
XX
AC   AAT47278;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #10.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
```

```
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4562
AAT47267
ID   AAT47267 standard; RNA; 19 BP.
XX
AC   AAT47267;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #1.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4563
AAT47270
ID   AAT47270 standard; RNA; 19 BP.
XX
AC   AAT47270;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #4.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxy-2'-fluoro-adenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
```

```
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   11.8%;  Pred. No. 3.9e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTT 2192
              ::::: :::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 4564
AAT50897
ID   AAT50897 standard; DNA; 19 BP.
XX
AC   AAT50897;
XX
DT   26-AUG-1997  (first entry)
XX
DE   Probe #11 for interleukin-6 receptor.
XX
KW   Probe; interleukin-6 receptor; IL-6R; cytokine; cellular proliferation;
KW   transmembrane glycoprotein receptor; signal transducer; gp130; inhibitor;
KW   IL-6; cancer; renal cell carcinoma; autoimmune disease; viral infection;
KW   therapy; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .19
FT                   /*tag=  a
FT                   /note= "optionally phosphorothioated"
XX
PN   EP747386-A2.
XX
PD   11-DEC-1996.
XX
PF   07-JUN-1996;   96EP-00304315.
XX
PR   07-JUN-1995;   95US-00484666.
PR   07-JUN-1995;   95US-00486408.
XX
PA   (GENP-) GEN-PROBE INC.
XX
PI   Brown SJ,  Dattagupta N,  Naidu YM;
XX
DR   WPI; 1997-023093/03.
XX
PT   Oligo:nucleotide(s) complementary to interleukin-6 receptor mRNA - for
PT   treating proliferative diseases, e.g. cancer, auto-immune diseases or
PT   viral infections.
XX
PS   Claim 1; Page 16; 18pp; English.
XX
CC   AAT50887-T50904 represent oligonucleotides of the invention. These
CC   sequences are all probes for interleukin-6 receptor (IL-6R) mRNA. IL-6 is
CC   one of the most well characterised of the cytokines. It functions through
CC   interacting with at least two transmembrane glycoprotein receptor
CC   molecules on the surface of target cells. The receptors are the IL-6R,
CC   and the signal transducer gp130. Signal transduction by IL-6 involves the
CC   concerted action of both IL-6R and gp130. IL-6 overproduction is
CC   implicated in many different disease states, particularly in cellular
CC   proliferation associated with these diseases. These sequences bind to the
CC   IL-6R coding sequence, thereby inhibiting IL-6R production. The sequences
CC   therefore inhibit the functioning of IL-6. These sequences can be used
CC   for inhibiting disease-associated cellular proliferation. The
CC   oligonucleotides are especially useful for treating cancer (e.g. renal
CC   cell carcinoma), autoimmune diseases or viral infections. They can also
CC   be used as probes for detecting IL-6 receptor mRNA, especially for
CC   evaluating the effectiveness of drugs in reducing IL-6 receptor mRNA
CC   levels
XX
SQ   Sequence 19 BP; 4 A; 7 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        455 GGCAGCCAGCAGCAGGC 471
              |||||||||||||  ||
Db          2 GGCAGCCAGCAGCGCGC 18


RESULT 4565
AAX32232
ID   AAX32232 standard; DNA; 19 BP.
XX
AC   AAX32232;
XX
DT   14-JUN-1999  (first entry)
XX
DE   Probe specific for BAP1 gene.
XX
KW   Allele profile; diagnosis; treatment; pharmacogenetic; breast cancer;
KW   CFTR; cystic fibrosis; dystrophin; Duchenne muscular dystrophy; p53;
KW   Becker muscular dystrophy; Li-Fraumeni syndrome; neurofibromatosis;
KW   colorectal cancer; MSH2 gene; MLH1 gene; BRCA1 gene; BRCA2 gene; PTEN;
KW   BAP1 gene; probe; ss.
XX
OS   Synthetic.
XX
PN   WO9906598-A2.
XX
PD   11-FEB-1999.
XX
PF   04-AUG-1998;   98WO-US016574.
XX
PR   04-AUG-1997;   97US-00905772.
PR   22-MAY-1998;   98US-00084471.
XX
PA   (ONCO-) ONCORMED INC.
XX
PI   Murphy PD;
XX
DR   WPI; 1999-153820/13.
XX
PT   Determining common functional alleles in a population - useful in the
PT   diagnosis of disease associated with allelic heterogeneity.
XX
PS   Example 5; Page 42; 78pp; English.
XX
CC   The invention relates to methods of determining a functional allele
CC   profile of a gene in a population. Functional allele profiles comprise
CC   the commonly occurring alleles in a population, and the relative
CC   frequencies at which such alleles of a given gene occur. The methods are
CC   used to identify and determine the frequency of the functional alleles of
CC   genes which display extensive allelic heterogeneity, particularly those
CC   implicated in disease or conditions, such as the BRCA1 gene associated
CC   with breast cancer, CFTR associated with cystic fibrosis, dystrophin
CC   associated with Duchenne muscular dystrophy and Becker muscular
CC   dystrophy, and p53 associated with Li-Fraumeni syndrome. The methods can
CC   also be employed for diseases where allelic and genetic heterogeneity
CC   exist, such as breast cancer, neurofibromatosis, and hereditary non-
CC   polyposis colorectal cancer. Identification of functional alleles is
CC   necessary for identification of mutations which may be implicated in the
CC   disease. Sequences AAX32173-232 represent probes used to detect BRCA2,
CC   PTEN, and BAP1 single nucleotide polymorphisms (SNPs)
XX
SQ   Sequence 19 BP; 6 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
```

```
Qy       2417 CTGTAAATACTGGTGCA 2433
              |||||||||||||  ||
Db          3 CTGTAAATACTGGATCA 19


RESULT 4566
AAZ00903
ID   AAZ00903 standard; DNA; 19 BP.
XX
AC   AAZ00903;
XX
DT   27-SEP-1999  (first entry)
XX
DE   Primer for PG1 biallelic marker 99-221.
XX
KW   PG1 gene; biallelic marker; PCR primer; PG1-related biallelic marker;
KW   cancer; prostate cancer; diagnosis; therapy; prostate specific antigen;
KW   PSA; human; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9932644-A2.
XX
PD   01-JUL-1999.
XX
PF   22-DEC-1998;   98WO-IB002133.
XX
PR   22-DEC-1997;   97US-00996306.
PR   09-SEP-1998;   98US-0099658P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I,  Bougueleret L;
XX
DR   WPI; 1999-405178/34.
XX
PT   Use of a prostate cancer associated gene and biallelic markers derived
PT   from it.
XX
PS   Example 6; Fig 6A; 385pp; English.
XX
CC   The invention relates to a mammalian PG1 gene and protein, and a set of
CC   PG1 biallelic markers. The PG1 polynucleotide and biallelic markers are
CC   used in a hybridisation assay, a sequencing assay, or in an allele-
CC   specific amplification assay for determining the identity of a nucleotide
CC   at a PG1-related biallelic marker. The methods can be used to detect and
CC   to assess the risk of developing cancer or prostate cancer. Early-stage
CC   diagnosis of prostate cancer relies on prostate specific antigen (PSA)
CC   dosage. However, the effectiveness of this is limited due to its
CC   inability to discriminate between malignant and non-malignant affections
CC   of the organ. A need exists for both a reliable diagnostic procedure
CC   which would enable early-stage diagnosis, and for preventative and
CC   curative treatments of the disease. The PG1 gene can be used for
CC   detection of prostate cancer, and the risk of developing it in the
CC   future, and can also be used to determine therapies for the disease
XX
SQ   Sequence 19 BP; 1 A; 7 C; 1 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1920 CCTTTTTTTTCAGTGTT 1936
              |||||||  ||||  ||||
Db          2 CCTTTTTCTTCACTGTT 18


RESULT 4567
AAZ01223
ID   AAZ01223 standard; DNA; 19 BP.
XX
AC   AAZ01223;
XX
DT   27-SEP-1999  (first entry)
XX
DE   PCR primer for PG1 biallelic marker 99-221-442.
XX
KW   PG1 gene; biallelic marker; PCR primer; PG1-related biallelic marker;
KW   cancer; prostate cancer; diagnosis; therapy; prostate specific antigen;
KW   PSA; human; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9932644-A2.
XX
PD   01-JUL-1999.
XX
PF   22-DEC-1998;   98WO-IB002133.
XX
PR   22-DEC-1997;   97US-00996306.
PR   09-SEP-1998;   98US-0099658P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I,  Bougueleret L;
XX
DR   WPI; 1999-405178/34.
XX
PT   Use of a prostate cancer associated gene and biallelic markers derived
PT   from it.
XX
PS   Claim 4; Page 352; 385pp; English.
XX
CC   The invention relates to a mammalian PG1 gene and protein, and a set of
CC   PG1 biallelic markers. The PG1 polynucleotide and biallelic markers are
CC   used in a hybridisation assay, a sequencing assay, or in an allele-
CC   specific amplification assay for determining the identity of a nucleotide
CC   at a PG1-related biallelic marker. The methods can be used to detect and
CC   to assess the risk of developing cancer or prostate cancer. Early-stage
CC   diagnosis of prostate cancer relies on prostate specific antigen (PSA)
CC   dosage. However, the effectiveness of this is limited due to its
CC   inability to discriminate between malignant and non-malignant affections
CC   of the organ. A need exists for both a reliable diagnostic procedure
CC   which would enable early-stage diagnosis, and for preventative and
CC   curative treatments of the disease. The PG1 gene can be used for
CC   detection of prostate cancer, and the risk of developing it in the
CC   future, and can also be used to determine therapies for the disease
XX
SQ   Sequence 19 BP; 1 A; 7 C; 1 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1920 CCTTTTTTTTCAGTGTT 1936
              |||||||  ||||  ||||
Db          2 CCTTTTTCTTCACTGTT 18


RESULT 4568
AAA35512/c
ID   AAA35512 standard; DNA; 19 BP.
XX
AC   AAA35512;
XX
DT   06-AUG-2003  (revised)
DT   25-JUL-2000  (first entry)
XX
DE   Myrtaceae microsatellite scu127TT detection PCR primer.
XX
KW   Myrtaceae; microsatellite; isolation; genotyping; plant; tea tree;
KW   breeding; Melaleuca alternifolia; broad-spectrum germicidal oil;
KW   pharmaceutical; cosmetic; identification; detection; PCR primer; ss.
XX
```

OS Myrtaceae.
XX
PN WO200017341-A1.
XX
PD 30-MAR-2000.
XX
PF 23-SEP-1999; 99WO-AU000820.
XX
PR 23-SEP-1998; 98AU-00006099.
PR 16-FEB-1999; 99AU-00008718.
XX
PA (BUSI-) BUSINESS & RES MANAGEMENT PTY LTD.
XX
PI Rossetto M, Mclauchlan A, Harriss FCL, Henry RJ, Baverstock PR;
PI Lee LS, Maguire TL, Edwards KJ;
XX
DR WPI; 2000-292840/25.
XX
PT Isolating microsatellites from Myrtaceae, useful for genotyping,
PT particularly in breeding programs for tea tree, by reacting plant nucleic
PT acid with immobilized oligonucleotides.
XX
PS Claim 10; Page 39; 100pp; English.
XX
CC A method has been developed of isolating a microsatellite (MS) from
CC nucleic acid extract of a plant of Myrtaceae family. The method
CC comprises: (i) treating the extract with one or more immobilised, single-
CC stranded oligonucleotides (ON) having a consensus MS repeat sequence
CC (MSRS) or its complement; (ii) washing under specified stringency
CC conditions; (iii) eluting nucleic acid bound to ON; and (iv) sequencing
CC the eluted nucleic acids to identify those containing an MSRS.
CC Microsatellites (MS) isolated by the method, specifically from Melaleuca
CC alternifolia (the tea tree, a source of a broad-spectrum germicidal oil,
CC useful in pharmaceuticals and cosmetics), are useful as genotyping
CC markers, particularly for breeding plants that produce the oil in higher
CC yield or of better quality. Primers based on MS are useful for both inter
CC - and intra-species genotyping. The selected washing conditions improve
CC efficiency of recovery of microsatellites (MS) and reduce the number of
CC washing stages required. Particularly about 86% of recovered sequence
CC contain an MS repeat sequence, compared with 50-70% when the conventional
CC washing procedure is followed. AAA35313 to AAA35357, and AAA35562 to
CC AAA35575 represent nucleotide sequences from the present invention which
CC contain microsatellite sequences. AAA35358 to AAA35561 represent
CC oligonucleotide PCR primers used for identifying Myrtaceae microsatellite
CC sequences. (Updated on 06-AUG-2003 to correct OS field.)
XX
SQ Sequence 19 BP; 0 A; 8 C; 2 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1497 AAATGGAGAAACACAGG 1513
|||| ||||||||| |||
Db 19 AAAGGGAGAAACAGAGG 3

RESULT 4569
AAZ37261
ID AAZ37261 standard; DNA; 19 BP.
XX
AC AAZ37261;
XX
DT 28-JAN-2000 (first entry)
XX
DE PCR primer for AV37 antigen coding sequence.
XX
KW AV37 antigen; monoclonal antibody; hybridoma AV37; vaccine; avian tumour;
KW oncogenic avian virus; Marek's disease virus; avian leucosis virus;
KW Rous-associated virus; reticuloendotheliosis virus; therapy; PCR primer;
KW ss.
XX
OS Synthetic.

OS Gallus sp.
XX
PN WO9955860-A1.
XX
PD 04-NOV-1999.
XX
PF 22-APR-1999; 99WO-GB001238.
XX
PR 29-APR-1998; 98GB-00009070.
XX
PA (ANIM-) INST ANIMAL HEALTH LTD.
XX
PI Burgess SC, Davison TF, Ross LJN;
XX
DR WPI; 2000-013437/01.
XX
PT New polypeptide, useful as a vaccine and to generate monoclonal
PT antibodies.
XX
PS Claim 31; Page 39; 63pp; English.
XX
CC This sequence is a PCR primer for DNA encoding the AV37 antigen protein
CC of the invention. The protein is recognised by a monoclonal antibody
CC (MAb) secreted by the hybridoma AV37 deposited at the European Collection
CC of Cell Cultures (ECACC) accession number 98030304. The polypeptide can
CC be used to isolate a MAb, produce a hybridoma producing the MAb, and in a
CC composition for use as a vaccine. The vaccine can be used against
CC oncogenic avian viruses, including Marek's disease virus, avian leucosis
CC virus, Rous-associated virus and reticuloendotheliosis virus. The vector
CC can be used to treat avian tumours
XX
SQ Sequence 19 BP; 4 A; 8 C; 2 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1250 TTCACAGAACTTCTCAG 1266
|||||| | ||||||||
Db 3 TTCACACACCTTCTCAG 19

RESULT 4570
AAA86469/c
ID AAA86469 standard; DNA; 19 BP.
XX
AC AAA86469;
XX
DT 04-DEC-2000 (first entry)
XX
DE PCBA HH ribozyme binding site #201.
XX
KW Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
XX
OS Mammalia.
XX
PN WO200032765-A2.
XX
PD 08-JUN-2000.
XX
PF 06-DEC-1999; 99WO-US028772.
XX
PR 04-DEC-1998; 98US-0110954P.
XX
PA (IMMJ-) IMMUSOL INC.
XX
PI Tritz R, Welch PJ, Barber JR, Robbins JM;
XX
DR WPI; 2000-412314/35.
XX
PT New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT PCNA and Cyclin B1.

```
XX
PS   Disclosure; Page 108; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells. The
CC   ribozyme is resistant to endonuclease activity and hence is efficient in
CC   restenosis treatment
XX
SQ   Sequence 19 BP; 2 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAA 2795
              ||||| || ||||||||
Db         18 AGAATAGAGAAAAAAAA 2


RESULT 4571
AAA84405/c
ID   AAA84405 standard; DNA; 19 BP.
XX
AC   AAA84405;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Cyclin D3 ribozyme binding site #17.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US028772.
XX
PR   04-DEC-1998;   98US-0110954P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1.
XX
PS   Disclosure; Page 76; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells. The
CC   ribozyme is resistant to endonuclease activity and hence is efficient in
CC   restenosis treatment
XX
SQ   Sequence 19 BP; 2 A; 8 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1606 GGCCTGGGGGAAGAGTT 1622
              |||| ||||||||| ||
Db         19 GGCCAGGGGGAAGACTT 3


RESULT 4572
AAA84723/c
ID   AAA84723 standard; DNA; 19 BP.
XX
AC   AAA84723;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Cyclin E ribozyme binding site #256.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US028772.
XX
PR   04-DEC-1998;   98US-0110954P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1.
XX
PS   Disclosure; Page 81; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells. The
CC   ribozyme is resistant to endonuclease activity and hence is efficient in
CC   restenosis treatment
XX
SQ   Sequence 19 BP; 1 A; 7 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        208 CTGCGAGGATCGCCACG 224
              |||||||||  ||||||
Db         17 CTGCGAGGAGAGCCACG 1


RESULT 4573
AAA86472/c
ID   AAA86472 standard; DNA; 19 BP.
XX
AC   AAA86472;
XX
DT   04-DEC-2000  (first entry)
XX
DE   PCBA HH ribozyme binding site #204.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
```

```
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US028772.
XX
PR   04-DEC-1998;   98US-0110954P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1.
XX
PS   Disclosure; Page 108; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells. The
CC   ribozyme is resistant to endonuclease activity and hence is efficient in
CC   restenosis treatment
XX
SQ   Sequence 19 BP; 3 A; 6 C; 0 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1491 TGGAGAAAATGGAGAAA 1507
              |||||| ||| ||||||
Db         17 TGGAGAGAATAGAGAAA 1


RESULT 4574
AAZ70580
ID   AAZ70580 standard; DNA; 19 BP.
XX
AC   AAZ70580;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker upstream amplification primer SEQ ID NO:4936.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 1283; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 19 BP; 4 A; 2 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2709 TCTCTGCCTGTAAATGT 2725
              | ||||| |||||||||
Db          2 TATCTGCTTGTAAATGT 18


RESULT 4575
AAZ73500
ID   AAZ73500 standard; DNA; 19 BP.
XX
AC   AAZ73500;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker upstream amplification primer SEQ ID NO:7856.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Example 13; Page 1905; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
```

```
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 19 BP; 1 A; 7 C; 1 G; 10 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1920 CCTTTTTTTTCAGTGTT 1936
              ||||||| |||| ||||
Db          2 CCTTTTTCTTCACTGTT 18


RESULT 4576
AAA75956
ID   AAA75956 standard; DNA; 19 BP.
XX
AC   AAA75956;
XX
DT   08-FEB-2001  (first entry)
XX
DE   PCR primer used to amplify and modify a trypsin gene terminator.
XX
KW   Protein production; promoter; hormone; receptor; antibody;
KW   trypsin terminator; PCR primer; ss.
XX
OS   Fusarium oxysporum.
XX
PN   WO200056900-A2.
XX
PD   28-SEP-2000.
XX
PF   22-MAR-2000; 2000WO-US007815.
XX
PR   22-MAR-1999;   99US-00274449.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
XX
PI   Berka RM,  Rey MW,  Brown K,  Brown SH;
XX
DR   WPI; 2000-638265/61.
XX
PT   Promoters useful for expressing heterologous genes and producing
PT   polypeptides such as hormones, receptors, antibodies or enzymes in a
PT   fungal cell.
XX
PS   Example 13; Page 43; 104pp; English.
XX
CC   PCR primers AAA75956-57 were used to amplify a trypsin gene terminator.
CC   The amplified promoter sequence is useful for constructing plasmids for
CC   the production of a polypeptide, preferably a hormone, receptor,
CC   antibody, a reporter or an enzyme selected from oxidoreductase,
CC   transferase, hydrolase, lyase, isomerase or ligase, in particular
CC   aminopeptidase, amylase, carbohydrase, carboxypeptidase, catalase,
CC   cellulase, chitinase, cutinase, cyclodextrin glycosyl transferase,
CC   deoxyribonuclease, esterase, alpha-galactosidase, beta-galactosidase,
CC   glucoamylase, alpha-glucosidase, beta-glucosidase, invertase, laccase,
CC   lipase, mannosidase, mutanase, oxidase, a pectinolytic enzyme,
CC   peroxidase, phytase, polyphenoloxidase, proteolytic enzyme, ribonuclease,
CC   transglutaminase or xylanase, in fungal host cells
XX
SQ   Sequence 19 BP; 5 A; 4 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         19 GTGTCCAGTGACCCGGA 35
              |||| |||||||||| ||
Db          1 GTGTGCAGTGACCCAGA 17


RESULT 4577
AAH61634/c
ID   AAH61634 standard; DNA; 19 BP.
XX
AC   AAH61634;
XX
DT   10-SEP-2001  (first entry)
XX
DE   PCNA HH ribozyme binding site SEQ ID NO:4058.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US029500.
XX
PR   26-OCT-1999;   99US-0161532P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using ribozymes
PT   that cleave RNA encoding cytokines involved in inflammation, matrix
PT   metalloproteinases, growth factors and cell-cycle dependent kinases.
XX
PS   Example 1; Page 367; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative skin
CC   diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
CC   exemplification of the present invention
XX
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```
SQ   Sequence 19 BP; 3 A; 6 C; 0 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1491 TGGAGAAAATGGAGAAA 1507
              ||||||  |||  ||||||
Db         17 TGGAGAGAATAGAGAAA 1

RESULT 4578
AAH61631/c
ID   AAH61631 standard; DNA; 19 BP.
XX
AC   AAH61631;
XX
DT   10-SEP-2001  (first entry)
XX
DE   PCNA HH ribozyme binding site SEQ ID NO:4055.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US029500.
XX
PR   26-OCT-1999;   99US-0161532P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using ribozymes
PT   that cleave RNA encoding cytokines involved in inflammation, matrix
PT   metalloproteinases, growth factors and cell-cycle dependent kinases.
XX
PS   Example 1; Page 366; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative skin
CC   diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
CC   exemplification of the present invention
XX
SQ   Sequence 19 BP; 2 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAA 2795
              |||||  ||  ||||||||
Db         18 AGAATAGAGAAAAAAAA 2

RESULT 4579
AAH59885/c
ID   AAH59885 standard; DNA; 19 BP.
XX
AC   AAH59885;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Cyclin E ribozyme binding site SEQ ID NO:2309.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US029500.
XX
PR   26-OCT-1999;   99US-0161532P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using ribozymes
PT   that cleave RNA encoding cytokines involved in inflammation, matrix
PT   metalloproteinases, growth factors and cell-cycle dependent kinases.
XX
PS   Example 1; Page 239; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative skin
CC   diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
```

CC scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC scar. AAH57577 to AAH62099 represent sequences used in the
CC exemplification of the present invention
XX
SQ Sequence 19 BP; 1 A; 7 C; 6 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 208 CTGCGAGGATCGCCACG 224
||||||||| ||||||
Db 17 CTGCGAGGAGAGCCACG 1

RESULT 4580
AAH59567/c
ID AAH59567 standard; DNA; 19 BP.
XX
AC AAH59567;
XX
DT 10-SEP-2001 (first entry)
XX
DE Cyclin D3 ribozyme binding site SEQ ID NO:1991.
XX
KW Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW sickle cell retinopathy; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200130362-A2.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US029500.
XX
PR 26-OCT-1999; 99US-0161532P.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Robbins JM, Tritz R;
XX
DR WPI; 2001-300427/31.
XX
PT Treating proliferative skin or eye diseases and scarring, using ribozymes
PT that cleave RNA encoding cytokines involved in inflammation, matrix
PT metalloproteinases, growth factors and cell-cycle dependent kinases.
XX
PS Example 1; Page 216; 408pp; English.
XX
CC The present invention describes a method for treating a proliferative
CC skin or eye disease and scarring. The method involves administering a
CC ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC dependent kinase, growth factor or a reductase, or administering a
CC nucleic acid molecule (II) comprising a promoter operably linked to a
CC nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC ophthalmological, vulnerary, keratolytic and virucide activities, and
CC cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC in gene therapy. (I) and (II) are useful for treating proliferative skin
CC diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC also be used for treating proliferative eye diseases such as diabetic
CC retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC prematurity and retinal detachment, and for treating and preventing
CC scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC scar. AAH57577 to AAH62099 represent sequences used in the
CC exemplification of the present invention
XX
SQ Sequence 19 BP; 2 A; 8 C; 5 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1606 GGCCTGGGGGAAGAGTT 1622
|||| |||||||||| ||
Db 19 GGCCAGGGGGAAGACTT 3

RESULT 4581
ABK41301
ID ABK41301 standard; DNA; 19 BP.
XX
AC ABK41301;
XX
DT 21-MAY-2002 (first entry)
XX
DE Human prostate cancer-associated marker upstream PCR primer #8.
XX
KW Human; obesity associated-biallelic marker; ss; prostate cancer; primer;
KW drug response; hyperuricaemia; digestive pathology; hypertension; cancer;
KW hepatic function disorder; cardiovascular disease; hyperlipidaemia; PCR;
KW insulin disorder; atheromatous disease; cardiac insufficiency; obesity.
XX
OS Homo sapiens.
XX
PN WO200206525-A2.
XX
PD 24-JAN-2002.
XX
PF 28-JUN-2001; 2001WO-IB001477.
XX
PR 18-JUL-2000; 2000US-0219704P.
XX
PA (GEST) GENSET.
XX
PI Cohen D, Blumenfeld M, Chumakov I, Abderrahim H, Bihain B;
XX
DR WPI; 2002-155043/20.
XX
PT Set of novel map-related biallelic markers, preferably located on obesity
PT disorder-associated chromosomal regions on chromosomes 3, 10 and 19,
PT useful, for e.g. detecting statistical correlations between marker allele
PT and a phenotype.
XX
PS Example 20; Page 305; 311pp; English.
XX
CC The invention relates to a set of novel map-related biallelic markers,
CC preferably located on obesity disorder-associated chromosomal regions on
CC chromosomes 3, 10 and 19. The markers are useful for genotyping or
CC estimating the frequency of an allele in a population, for detecting an
CC association between a genotype or haplotype and a phenotype, e.g. a
CC disease involving drug responses, obesity or disorders related to
CC obesity, such as hyperuricaemia, digestive pathology, hepatic function
CC disorders, cancer, cardiovascular disease, hypertension, hyperlipidaemia,
CC insulin disorders, atheromatous disease and cardiac insufficiency. The
CC markers are useful for detecting a statistical correlation between a
CC biallelic marker allele and a phenotype and/or between a biallelic marker
CC haplotype and a phenotype. This sequence represents a PCR primer used to
CC amplify a human prostate cancer-associated biallelic marker
XX
SQ Sequence 19 BP; 1 A; 7 C; 1 G; 10 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1920 CCTTTTTTTTCAGTGTT 1936
              ||||||| |||| ||||
Db          2 CCTTTTTCTTCACTGTT 18


RESULT 4582
AAL42341
ID   AAL42341 standard; DNA; 19 BP.
XX
AC   AAL42341;
XX
DT   28-JUN-2002  (first entry)
XX
DE   Novel sand pear microsatellite DNA PCR primer 5.
XX
KW   Sand pear; ss; PCR; primer; novel microsatellite DNA sequence;
KW   Pyrus plant discrimination.
XX
OS   Pyrus pyrifolia.
XX
PN   JP2002034597-A.
XX
PD   05-FEB-2002.
XX
PF   21-JUL-2000; 2000JP-00220339.
XX
PR   21-JUL-2000; 2000JP-00220339.
XX
PA   (DOKU-) DOKURITSU GYOSEI HOJIN NOGYO SEIBUTSU SH.
XX
DR   WPI; 2002-298819/34.
XX
PT   A new microsatellite DNA derived from a Pyrus plant and discrimination of
PT   Pyrus plants by using it.
XX
PS   Claim 9; Page 6; 22pp; Japanese.
XX
CC   The invention comprises a novel microsatellite DNA sequence derived from
CC   Pyrus plants. The invention also comprises a method for discriminating
CC   Pyrus plants - utilising the novel Pyrus microsatellite DNA. The novel
CC   microsatellite DNA sequence can be used in discriminating Pyrus plants.
CC   The present DNA sequence represents a PCR primer specific for a novel
CC   Pyrus pyrifolia (sand pear) microsatellite DNA sequence
XX
SQ   Sequence 19 BP; 8 A; 1 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        173 TGGAAAATAACCGATAA 189
              |||| |||||| |||||
Db          2 TGGAGAATAACTGATAA 18


RESULT 4583
ABK49173
ID   ABK49173 standard; DNA; 19 BP.
XX
AC   ABK49173;
XX
DT   02-JUL-2002  (first entry)
XX
DE   F. oxysporum trypsin promoter PCR primer #5.
XX
KW   Glucoamylase; ss; PCR; promoter; foreign gene expression; trypsin;
KW   primer; pDM194; pDM218.
XX
OS   Fusarium oxysporum.
XX
PN   US6361973-B1.
XX
PD   26-MAR-2002.
XX
PF   22-MAR-2000; 2000US-00534407.
XX
PR   22-MAR-1999;   99US-00274449.
PR   22-JUL-1999;   99US-0145339P.
XX
PA   (NOVO ) NOVOZYMES BIOTECH INC.
XX
PI   Berka RM,  Rey MW,  Brown K,  Brown SH;
XX
DR   WPI; 2002-350392/38.
XX
PT   Novel Fusarium venenatum promoters, useful for expressing genes in a
PT   fungal cell.
XX
PS   Example 13; Col 30; 57pp; English.
XX
CC   The invention relates to a novel promoter sequence from the F. venenatum
CC   glucoamylase gene, a subsequence of the promoter that retains promoter
CC   activity or a nucleic acid sequence that hybridises under medium
CC   stringency conditions with the promoter. Also included are a method of
CC   producing a polypeptide comprising cultivating a fungal host cell in a
CC   medium, where the fungal host cell comprises a first nucleic acid
CC   sequence encoding the polypeptide operably linked to a second nucleic
CC   acid sequence comprising a promoter foreign to the first nucleic acid
CC   sequence, where the promoter comprises a nucleic acid sequence selected
CC   from the F. venenatum glucoamylase promoter, a subsequence of the
CC   promoter that retains promoter activity and a nucleic acid sequence that
CC   hybridises under medium stringency conditions with the promoter and
CC   isolating the polypeptide from the cultivation medium. The promoter is
CC   useful for expressing genes in a fungal cell. Expression of a lipase
CC   reporter gene in Fusarium venenatum when operably linked to the promoter
CC   showed higher levels of lipase activity than a Fusarium oxysporum trypsin
CC   promoter. Also disclosed are two novel genes designated Daria (a secreted
CC   protein) and Quinn (a vacuolar associated protein). The present sequence
CC   is a PCR primer used to clone the F. oxysporum trypsin promoter from
CC   plasmid pDM194 for creation of plasmid pDM218, an intermediate plasmid in
CC   the construction of an expression vector used to compare the expression
CC   levels of lipase under the control of the trypsin promoter or the
CC   glucoamylase promoter of the invention
XX
SQ   Sequence 19 BP; 5 A; 4 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         19 GTGTCCAGTGACCCGGA 35
              |||| ||||||||| ||
Db          1 GTGTGCAGTGACCCAGA 17


RESULT 4584
ABK90099
ID   ABK90099 standard; DNA; 19 BP.
XX
AC   ABK90099;
XX
DT   29-NOV-2002  (first entry)
XX
DE   Oestrogen response element (ERE), oligonucleotide probe #1.
XX
KW   Human; modifying cellular sensitivity; genotoxic stress; BRCA1;
KW   tumour suppressor protein; stress-activated intracellular kinase; Cds1;
KW   genotoxin-induced cellular DNA damage; ultraviolet light;
KW   ionising radiation; chemotherapy agent; anthracycline; cisplatin;
KW   cyclophosphamide; Z47 protein; aging; cancer; heart failure; cytostatic;
KW   oestrogen response element; ERE; probe; ss.
XX
OS   Homo sapiens.
XX
```

PN US2002102248-A1.
XX
PD 01-AUG-2002.
XX
PF 05-SEP-2001; 2001US-00947258.
XX
PR 06-SEP-2000; 2000US-0230476P.
XX
PA (USGO) US GOVERNMENT.
XX
PI Chung JH;
XX
DR WPI; 2002-682010/73.
XX
PT Modifying sensitivity to genotoxic stress in cell, by exposing cell to
PT biological macromolecule that alters phosphorylation of BRCA1 by Cds1 at
PT BRCA1 amino acid(s) residues that affect cellular response to the stress.
XX
PS Example 14; Page 14; 26pp; English.
XX
CC The present invention relates to a method for modifying cellular
CC sensitivity to genotoxic stress in a cell. The method involves exposing
CC the cell to a biological macromolecule that alters the phosphorylation of
CC the tumour suppressor protein, BRCA1 by the stress-activated
CC intracellular kinase, Cds1 at one or more BRCA1 amino acid residues that
CC affect a cellular response to genotoxic stress or genotoxin-induced
CC cellular DNA damage. Genotoxins that induce such cellular DNA damage
CC include ultraviolet light, ionising radiation, and chemotherapy agents
CC (e.g. anthracyclines, cisplatin, and cyclophosphamide). A BRCA1 peptide-
CC specific antibody is useful for determining exposure to genotoxic stress,
CC by determining whether Ser988 of BRCA1 in a cell is phosphorylated. It is
CC also useful in immunolocalisation studies of Z47 protein, in quantitative
CC immunoassays, and also in semi-quantitative or qualitative assays to
CC identify the presence of antigen in a biological sample. The method of
CC the invention is useful for modifying sensitivity to genotoxic stress
CC which can lead to illnesses such as aging, cancer, and some forms of
CC heart failure. The present sequence representing an oligonucleotide probe
CC for oestrogen response elements (ERE) is used in a mobility shift assay
CC in the examples of the present invention
XX
SQ Sequence 19 BP; 3 A; 5 C; 6 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy         72 GCCTGGTCACCGTGACC 88
              || ||||||| ||||||
Db          2 GCTTGGTCACTGTGACC 18
```

RESULT 4585
ACD06509
ID ACD06509 standard; DNA; 19 BP.
XX
AC ACD06509;
XX
DT 06-AUG-2003 (first entry)
XX
DE Forward RT-PCR primer for human NOV36c set 4.
XX
KW Human; ss; PCR; NOVX; cardiomyopathy; atherosclerosis; hypertension;
KW congenital heart defect; prostate cancer; diabetes; metabolic disorder;
KW neoplasm; graft versus host disease; AIDS; bronchial asthma; primer;
KW Crohn's disease; multiple sclerosis; infectious disease; anorexia;
KW cancer-associated cachexia; neurodegenerative disorder; RT-PCR;
KW Alzheimer's disease; Parkinson's disease; immune disorder;
KW haematopoietic disorder; dyslipidaemia; wasting disorder; gene therapy;
KW reverse transcriptase PCR.
XX
OS Homo sapiens.
XX
PN WO2003023008-A2.
XX
PD 20-MAR-2003.
XX
PF 09-SEP-2002; 2002WO-US028596.
XX
PR 07-SEP-2001; 2001US-0318120P.
PR 07-SEP-2001; 2001US-0318130P.
PR 10-SEP-2001; 2001US-0318430P.
PR 12-SEP-2001; 2001US-0318765P.
PR 17-SEP-2001; 2001US-0322781P.
PR 17-SEP-2001; 2001US-0322816P.
PR 19-SEP-2001; 2001US-0323519P.
PR 20-SEP-2001; 2001US-0323631P.
PR 20-SEP-2001; 2001US-0323636P.
PR 25-SEP-2001; 2001US-0324969P.
PR 25-SEP-2001; 2001US-0325091P.
PR 26-SEP-2001; 2001US-0324990P.
PR 15-FEB-2002; 2002US-0357303P.
PR 28-FEB-2002; 2002US-0360973P.
PR 20-MAR-2002; 2002US-0366131P.
PR 25-MAR-2002; 2002US-0367753P.
PR 02-APR-2002; 2002US-0369479P.
PR 10-MAY-2002; 2002US-0379532P.
PR 17-MAY-2002; 2002US-0381664P.
PR 17-MAY-2002; 2002US-0381672P.
PR 28-MAY-2002; 2002US-0383651P.
PR 29-MAY-2002; 2002US-0384012P.
PR 19-JUN-2002; 2002US-0390155P.
PR 06-SEP-2002; 2002US-00390155.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Zhong M, Li L, Gorman L, Spytek KA, Kekuda R, Taupier RJ;
PI Anderson DW, Vernet CAM, Catterton E, Miller CE, Shenoy SG;
PI Patturajan M, Pena CEA, Tchernev VT, Padigaru M, Gusev VY;
PI Malyankar UM, Burgess CE, Gerlach VL, Casman SJ, Rieger DK;
PI Grosse WM, Smithson G, Peyman JA, Starling G, Rothenberg ME;
PI Larochelle WJ, Shimkets RA, Crabtree J, Rastelli L, Voss EZ;
PI Boldog FL, Edinger SR, Millet I, Macdougall JR, Ellerman K;
PI Chapoval A;
XX
DR WPI; 2003-313246/30.
XX
PT New polypeptides and polynucleotides having properties related to
PT stimulation of biochemical or physiological responses in a cell or
PT tissue, useful for diagnosing or preventing e.g. atherosclerosis,
PT hypertension, prostate cancer.
XX
PS Example C; Page 553; 849pp; English.
XX
CC The invention relates to an isolated polypeptide comprising one of 127
CC sequences (appearing as ABO1288-ABO1414) designated as NOVX, a mature
CC form of NOVX, an amino acid sequence which is at least 95% identical to
CC NOVX or an amino acid sequence comprising one or more conservative
CC substitutions in NOVX. Also included are nucleic acids encoding NOVX
CC proteins, determining the presence or amount of NOVX or NOVX DNA in a
CC sample (by introducing the sample to an antibody that binds
CC immunospecifically to the polypeptide, and determining the presence or
CC amount of antibody bound to the polypeptide), determining the presence of
CC or predisposition to a disease associated with altered levels of
CC expression of NOVX or NOVX DNA in a first mammalian subject, identifying
CC an agent that binds to NOVX, identifying a potential therapeutic agent
CC for treatment of a pathology related to aberrant expression or aberrant
CC physiological interactions of NOVX, screening for a modulator of activity
CC of or of latency or predisposition to a pathology associated with NOVX, a
CC vector comprising NOVX DNA, a cell comprising the vector (used to produce
CC NOVX) and an anti-NOVX antibody. The NOVX nucleic acids and polypeptides
CC are useful as a marker for cell or tissue type, and in diagnosing and
CC treating pathologies, diseases, conditions or disorders associated with
CC NOVX sequences, including cardiomyopathy, atherosclerosis, hypertension,
CC congenital heart defects, prostate cancer, diabetes, metabolic disorders,
CC neoplasm, graft versus host disease, AIDS, bronchial asthma, Crohn's
CC disease, multiple sclerosis, infectious diseases, anorexia, cancer-

```
CC   associated cachexia, neurodegenerative disorders (e.g. Alzheimer's
CC   disease or Parkinson's disease), immune disorders, haematopoietic
CC   disorders, dyslipidaemias, and wasting disorders associated with chronic
CC   diseases. These may also be used to screen for molecules which inhibit or
CC   enhance NOVX activity or function, and for detecting specific cell types.
CC   These may also be used in chromosome mapping, gene therapy, tissue
CC   typing, and in forensic biology. The present sequence is a reverse
CC   transcriptase (RT)-PCR primer used to assess the tissue specific
CC   expression of mRNA encoding a NOVX protein
XX
SQ   Sequence 19 BP; 4 A; 2 C; 7 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2479 CTTTTAATGGTGATGGG 2495
              | ||| ||||||||||||
Db          1 CCTTTGATGGTGATGGG 17


RESULT 4586
ACD06722
ID   ACD06722 standard; DNA; 19 BP.
XX
AC   ACD06722;
XX
DT   06-AUG-2003  (first entry)
XX
DE   Forward RT-PCR primer for human NOV36o set 2.
XX
KW   Human; ss; PCR; NOVX; cardiomyopathy; atherosclerosis; hypertension;
KW   congenital heart defect; prostate cancer; diabetes; metabolic disorder;
KW   neoplasm; graft versus host disease; AIDS; bronchial asthma; primer;
KW   Crohn's disease; multiple sclerosis; infectious disease; anorexia;
KW   cancer-associated cachexia; neurodegenerative disorder; RT-PCR;
KW   Alzheimer's disease; Parkinson's disease; immune disorder;
KW   haematopoietic disorder; dyslipidaemia; wasting disorder; gene therapy;
KW   reverse transcriptase PCR.
XX
OS   Homo sapiens.
XX
PN   WO2003023008-A2.
XX
PD   20-MAR-2003.
XX
PF   09-SEP-2002; 2002WO-US028596.
XX
PR   07-SEP-2001; 2001US-0318120P.
PR   07-SEP-2001; 2001US-0318130P.
PR   10-SEP-2001; 2001US-0318430P.
PR   12-SEP-2001; 2001US-0318765P.
PR   17-SEP-2001; 2001US-0322781P.
PR   17-SEP-2001; 2001US-0322816P.
PR   19-SEP-2001; 2001US-0323519P.
PR   20-SEP-2001; 2001US-0323631P.
PR   20-SEP-2001; 2001US-0323636P.
PR   25-SEP-2001; 2001US-0324969P.
PR   25-SEP-2001; 2001US-0325091P.
PR   26-SEP-2001; 2001US-0324990P.
PR   15-FEB-2002; 2002US-0357303P.
PR   28-FEB-2002; 2002US-0360973P.
PR   20-MAR-2002; 2002US-0366131P.
PR   25-MAR-2002; 2002US-0367753P.
PR   02-APR-2002; 2002US-0369479P.
PR   10-MAY-2002; 2002US-0379532P.
PR   17-MAY-2002; 2002US-0381664P.
PR   17-MAY-2002; 2002US-0381672P.
PR   28-MAY-2002; 2002US-0383651P.
PR   29-MAY-2002; 2002US-0384012P.
PR   19-JUN-2002; 2002US-0390155P.
PR   06-SEP-2002; 2002US-00390155.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Zhong M,  Li L,  Gorman L,  Spytek KA,  Kekuda R,  Taupier RJ;
PI   Anderson DW,  Vernet CAM,  Catterton E,  Miller CE,  Shenoy SG;
PI   Patturajan M,  Pena CEA,  Tchernev VT,  Padigaru M,  Gusev VY;
PI   Malyankar UM,  Burgess CE,  Gerlach VL,  Casman SJ,  Rieger DK;
PI   Grosse WM,  Smithson G,  Peyman JA,  Starling G,  Rothenberg ME;
PI   Larochelle WJ,  Shimkets RA,  Crabtree J,  Rastelli L,  Voss EZ;
PI   Boldog FL,  Edinger SR,  Millet I,  Macdougall JR,  Ellerman K;
PI   Chapoval A;
XX
DR   WPI; 2003-313246/30.
XX
PT   New polypeptides and polynucleotides having properties related to
PT   stimulation of biochemical or physiological responses in a cell or
PT   tissue, useful for diagnosing or preventing e.g. atherosclerosis,
PT   hypertension, prostate cancer.
XX
PS   Example C; Page 712; 849pp; English.
XX
CC   The invention relates to an isolated polypeptide comprising one of 127
CC   sequences (appearing as ABO1288-ABO1414) designated as NOVX, a mature
CC   form of NOVX, an amino acid sequence which is at least 95% identical to
CC   NOVX or an amino acid sequence comprising one or more conservative
CC   substitutions in NOVX. Also included are nucleic acids encoding NOVX
CC   proteins, determining the presence or amount of NOVX or NOVX DNA in a
CC   sample (by introducing the sample to an antibody that binds
CC   immunospecifically to the polypeptide, and determining the presence or
CC   amount of antibody bound to the polypeptide), determining the presence of
CC   or predisposition to a disease associated with altered levels of
CC   expression of NOVX or NOVX DNA in a first mammalian subject, identifying
CC   an agent that binds to NOVX, identifying a potential therapeutic agent
CC   for treatment of a pathology related to aberrant expression or aberrant
CC   physiological interactions of NOVX, screening for a modulator of activity
CC   of or of latency or predisposition to a pathology associated with NOVX, a
CC   vector comprising NOVX DNA, a cell comprising the vector (used to produce
CC   NOVX) and an anti-NOVX antibody. The NOVX nucleic acids and polypeptides
CC   are useful as a marker for cell or tissue type, and in diagnosing and
CC   treating pathologies, diseases, conditions or disorders associated with
CC   NOVX sequences, including cardiomyopathy, atherosclerosis, hypertension,
CC   congenital heart defects, prostate cancer, diabetes, metabolic disorders,
CC   neoplasm, graft versus host disease, AIDS, bronchial asthma, Crohn's
CC   disease, multiple sclerosis, infectious diseases, anorexia, cancer-
CC   associated cachexia, neurodegenerative disorders (e.g. Alzheimer's
CC   disease or Parkinson's disease), immune disorders, haematopoietic
CC   disorders, dyslipidaemias, and wasting disorders associated with chronic
CC   diseases. These may also be used to screen for molecules which inhibit or
CC   enhance NOVX activity or function, and for detecting specific cell types.
CC   These may also be used in chromosome mapping, gene therapy, tissue
CC   typing, and in forensic biology. The present sequence is a reverse
CC   transcriptase (RT)-PCR primer used to assess the tissue specific
CC   expression of mRNA encoding a NOVX protein
XX
SQ   Sequence 19 BP; 4 A; 2 C; 7 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2479 CTTTTAATGGTGATGGG 2495
              | ||| ||||||||||||
Db          1 CCTTTGATGGTGATGGG 17


RESULT 4587
ADA25723/c
ID   ADA25723 standard; RNA; 19 BP.
XX
AC   ADA25723;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human REL-A short interfering nucleic acid SEQ ID NO:71.
```

XX
KW short interfering nucleic acid; siNA; nuclear factor kappa B; NF-kappaB;
KW RNA interference; vasotropic; nootropic; antiparkinsonian;
KW neuroprotective; cytostatic; antiinflammatory; antiallergic; virucide;
KW anti-HIV; immunosuppressive; anticonvulsant; nephrotropic; gene therapy;
KW modulation; inhibition; restenosis; central nervous system lesion;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; epilepsy;
KW dementia; amyotrophic lateral sclerosis; cancer;
KW polycystic kidney disease; inflammatory disease; allergic disease;
KW viral infection; HIV; autoimmune disease; transplant rejection; ribozyme;
KW human; v-rel reticuloendotheliosis viral oncogene homologue A; REL-A;
KW nuclear factor; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003070970-A2.
XX
PD 28-AUG-2003.
XX
PF 20-FEB-2003; 2003WO-US004951.
XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J, Beigelman L;
XX
DR WPI; 2003-689788/65.
XX
PT New short interfering nucleic acid downregulates expression of the NF-
PT kappaB gene useful e.g. for treatment and diagnosis of cancer and
PT inflammation.
XX
PS Example 3; Page 128; 149pp; English.
XX
CC The present invention describes a short interfering nucleic acid (siNA)
CC that downregulates expression of a nuclear factor kappa B (NF-kappaB)
CC gene by RNA interference. Also described: (1) kits for in vitro or in
CC vivo delivery of siNA; (2) conjugates and/or complexes of siNA; and (3)
CC vectors that express siNA. The siNAs have vasotropic, nootropic,
CC antiparkinsonian, neuroprotective, cytostatic, antiinflammatory,
CC antiallergic, virucide, anti-HIV, immunosuppressive, anticonvulsant and
CC nephrotropic activities, and can be used in gene therapy, and for the
CC modulation (inhibition) of expression or activity of NF-kappaB by RNA
CC interference (siNA target mRNA, RNA splice variants, post-
CC transcriptionally modified RNA, pre-RNA and/or RNA templates). The siNA
CC sequences can be used to modulate expression of NF-kappaB genes, in
CC cells, tissue explants or organisms, e.g. by ex vivo gene therapy, in
CC grafts and transplants for treating restenosis and central nervous system
CC lesions and injuries (Alzheimer's, Parkinson's or Huntington's diseases,
CC epilepsy, dementia or amyotrophic lateral sclerosis) or for treating many
CC cancers, other proliferative diseases (restenosis and polycystic kidney
CC disease), inflammatory and/or allergic diseases, viral infections
CC (including HIV), autoimmune diseases and transplant rejection, and also
CC for drug screening; diagnosis; target identification and validation;
CC genetic engineering; pharmacogenomics; studying gene function and gene
CC mapping (e.g. of single-nucleotide polymorphisms). The present sequence
CC represents human v-rel reticuloendotheliosis viral oncogene homologue A
CC (REL-A) siNA, which is used in the exemplification of the present
CC invention. REL-A is a nuclear factor of the kappa light polypeptide gene
CC enhancer in B-cells.
XX
SQ Sequence 19 BP; 3 A; 12 C; 3 G; 0 T; 1 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;

Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy        106 GCTTGGGGGCTGGGGGG 122
              ||||||||||  || |||
Db         19 GCTTGGGGGCAGGTGGG 3
```

RESULT 4588
ADA26072
ID ADA26072 standard; RNA; 19 BP.
XX
AC ADA26072;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human REL-A short interfering nucleic acid SEQ ID NO:207.
XX
KW short interfering nucleic acid; siNA; nuclear factor kappa B; NF-kappaB;
KW RNA interference; vasotropic; nootropic; antiparkinsonian;
KW neuroprotective; cytostatic; antiinflammatory; antiallergic; virucide;
KW anti-HIV; immunosuppressive; anticonvulsant; nephrotropic; gene therapy;
KW modulation; inhibition; restenosis; central nervous system lesion;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; epilepsy;
KW dementia; amyotrophic lateral sclerosis; cancer;
KW polycystic kidney disease; inflammatory disease; allergic disease;
KW viral infection; HIV; autoimmune disease; transplant rejection; ribozyme;
KW human; v-rel reticuloendotheliosis viral oncogene homologue A; REL-A;
KW nuclear factor; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003070970-A2.
XX
PD 28-AUG-2003.
XX
PF 20-FEB-2003; 2003WO-US004951.
XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J, Beigelman L;
XX
DR WPI; 2003-689788/65.
XX
PT New short interfering nucleic acid downregulates expression of the NF-
PT kappaB gene useful e.g. for treatment and diagnosis of cancer and
PT inflammation.
XX
PS Example 3; Page 128; 149pp; English.
XX
CC The present invention describes a short interfering nucleic acid (siNA)
CC that downregulates expression of a nuclear factor kappa B (NF-kappaB)
CC gene by RNA interference. Also described: (1) kits for in vitro or in
CC vivo delivery of siNA; (2) conjugates and/or complexes of siNA; and (3)
CC vectors that express siNA. The siNAs have vasotropic, nootropic,
CC antiparkinsonian, neuroprotective, cytostatic, antiinflammatory,
CC antiallergic, virucide, anti-HIV, immunosuppressive, anticonvulsant and
CC nephrotropic activities, and can be used in gene therapy, and for the
CC modulation (inhibition) of expression or activity of NF-kappaB by RNA
CC interference (siNA target mRNA, RNA splice variants, post-
CC transcriptionally modified RNA, pre-RNA and/or RNA templates). The siNA
CC sequences can be used to modulate expression of NF-kappaB genes, in
CC cells, tissue explants or organisms, e.g. by ex vivo gene therapy, in
CC grafts and transplants for treating restenosis and central nervous system
CC lesions and injuries (Alzheimer's, Parkinson's or Huntington's diseases,

CC epilepsy, dementia or amyotrophic lateral sclerosis) or for treating many
CC cancers, other proliferative diseases (restenosis and polycystic kidney
CC disease), inflammatory and/or allergic diseases, viral infections
CC (including HIV), autoimmune diseases and transplant rejection, and also
CC for drug screening; diagnosis; target identification and validation;
CC genetic engineering; pharmacogenomics; studying gene function and gene
CC mapping (e.g. of single-nucleotide polymorphisms). The present sequence
CC represents human v-rel reticuloendotheliosis viral oncogene homologue A
CC (REL-A) siNA, which is used in the exemplification of the present
CC invention. REL-A is a nuclear factor of the kappa light polypeptide gene
CC enhancer in B-cells.
XX
SQ Sequence 19 BP; 1 A; 3 C; 12 G; 0 T; 3 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 76.5%; Pred. No. 3.9e+03;
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 106 GCTTGGGGGCTGGGGGG 122
||::|||||| || |||
Db 1 GCUUGGGGGCAGGUGGG 17

RESULT 4589
ADA45472
ID ADA45472 standard; DNA; 19 BP.
XX
AC ADA45472;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human BAP1 DNA probe #16.
XX
KW Functional allele profile; genetic inheritance; haplotype; population;
KW disease; pharmacogenetic application; selective pressure; human; MSH2;
KW MLH1; BRCA1; BRCA2; PTEN; BAP1; BARD1; p53; probe; ss.
XX
OS Homo sapiens.
XX
PN US2003096236-A1.
XX
PD 22-MAY-2003.
XX
PF 08-AUG-2001; 2001US-00923327.
XX
PR 12-FEB-1996; 96US-00598591.
PR 12-FEB-1997; 97US-00798691.
PR 04-AUG-1997; 97US-00905772.
PR 22-MAY-1998; 98US-00084471.
PR 04-AUG-1998; 98US-00129134.
PR 14-MAR-2000; 2000US-00524794.
XX
PA (ONCO-) ONCORMED INC.
XX
PI Murphy PD;
XX
DR WPI; 2003-576875/54.
XX
PT Determining a functional allele profile of a gene in a population by
PT identifying the nucleotide sequence of a gene of genomic DNA from each of
PT the individuals with a family history of functional alleles of the gene
PT of interest.
XX
PS Example 5; Page 16; 28pp; English.
XX
CC The present invention relates to a method for determining a functional
CC allele profile of a gene in a population. The method comprises
CC identifying the nucleotide sequence of a gene of interest out of genomic
CC DNA from each of a population of individuals identified as having a
CC family history which indicates inheritance of functional alleles of the
CC gene of interest, and rank ordering the frequency of occurrence of each
CC haplotype, where the identity of the alleles containing each haplotype
CC and the determination of their relative frequencies constitutes the
CC functional allele profile of the gene of interest in the population. The
CC method is useful for determining functional allele profiles which are
CC useful in the treatment and diagnosis of diseases, for genetic and
CC pharmacogenetic applications, and for evaluating the degree to which the
CC gene(s) are under selective pressure. The present sequence represents a
CC probe used in the method of the invention.
XX
SQ Sequence 19 BP; 6 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2417 CTGTAAATACTGGTGCA 2433
||||||||||||| ||
Db 3 CTGTAAATACTGGATCA 19

RESULT 4590
ACD99555/c
ID ACD99555 standard; DNA; 19 BP.
XX
AC ACD99555;
XX
DT 25-SEP-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #241.
XX
KW Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS Synthetic.
XX
PN US2003050268-A1.
XX
PD 13-MAR-2003.
XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.
PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 15; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 19 BP; 0 A; 10 C; 9 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 520 CGGGCGCCCGGCCGGCC 536
| || ||||||||||||

```
Db         19 CCGGGGCCCGGCCGGCC 3

RESULT 4591
ACD07875
ID   ACD07875 standard; DNA; 19 BP.
XX
AC   ACD07875;
XX
DT   08-AUG-2003  (first entry)
XX
DE   F. oxysporum trypsin promoter PCR primer multi 3.
XX
KW   PCR; ss; promoter; glucoamylase; Daria; Quinn; primer; trypsin;
KW   heterologous gene expression; lipase.
XX
OS   Fusarium oxysporum.
XX
PN   US6518044-B1.
XX
PD   11-FEB-2003.
XX
PF   30-OCT-2001; 2001US-00999201.
XX
PR   22-MAR-1999;   99US-00274449.
PR   22-JUL-1999;   99US-0145339P.
PR   22-MAR-2000; 2000US-00534407.
XX
PA   (NOVO ) NOVOZYMES BIOTECH INC.
XX
PI   Berka RM,  Rey MW,  Brown K,  Brown SH;
XX
DR   WPI; 2003-455679/58.
XX
PT   Producing a polypeptide through the use of promoters that express genes
PT   in fungal cell, comprises cultivating a fungal host cell in a medium for
PT   the production of the polypeptide and isolating the polypeptide from the
PT   cultivation medium.
XX
PS   Example 13; Col 30; 57pp; English.
XX
CC   The invention relates to producing a polypeptide comprises cultivating a
CC   fungal host cell in a medium for the production of the polypeptide and
CC   isolating the polypeptide from the cultivation medium. The host cell
CC   comprises a first nucleic acid sequence encoding the polypeptide operably
CC   linked to a second nucleic acid sequence having a promoter foreign to the
CC   first sequence. The promoter comprises a nucleic acid sequence: (a)
CC   having nucleotides 1-938 of the Fusarium venenatum Daria gene appearing
CC   as ACD07859; or (b) that retains the promoter activity of nucleotides 1-
CC   938 of the Daria gene; or (c) that hybridises under medium stringency
CC   conditions with nucleotides 1-938 of the Daria gene. Also disclosed are
CC   the F. venenatum Daria protein (a novel secreted protein), the F.
CC   venenatum Quinn gene/protein (a vacuolar associated protein) and the F.
CC   venenatum glucoamylase gene/protein. The method is useful for producing a
CC   polypeptide in commercially relevant quantities by using promoters that
CC   express genes in fungal cells. The present sequence represents a PCR
CC   primer used in the construction of an expression vector utilising the
CC   Fusarium oxysporum trypsin promoter/terminator and the thermomyces
CC   lanuginosus lipase gene as a reporter gene, for expression in Fusarium
CC   venenatum
XX
SQ   Sequence 19 BP; 5 A; 4 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         19 GTGTCCAGTGACCCGGA 35
              |||| |||||||||| ||
Db          1 GTGTGCAGTGACCCAGA 17


RESULT 4592
ADD00126
ID   ADD00126 standard; RNA; 19 BP.
XX
AC   ADD00126;
XX
DT   01-JAN-2004  (first entry)
XX
DE   HCV coding region-derived 60% conserved RNA sequence 72.
XX
KW   HCV infection; replication; pathogenesis; virucide; vaccine;
KW   gene therapy; ds.
XX
OS   Hepatitis C virus.
XX
PN   WO2003016572-A1.
XX
PD   27-FEB-2003.
XX
PF   16-AUG-2002; 2002WO-US021843.
XX
PR   17-AUG-2001; 2001US-0313076P.
PR   20-DEC-2001; 2001US-0344116P.
PR   01-FEB-2002; 2002US-0353750P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Zhao G,  Lu J,  Glass JI,  Martinez A,  Yang Y;
XX
DR   WPI; 2003-268345/26.
XX
PT   New double stranded RNA oligonucleotide, useful for preparing a
PT   composition for treating or preventing hepatitis C virus.
XX
PS   Disclosure; Page 49; 173pp; English.
XX
CC   The invention relates to a novel isolated double stranded RNA
CC   oligonucleotide about 19 to about 25 ribonucleotides in length or its
CC   equivalent. One strand of the oligonucleotide comprises the same
CC   nucleotide sequence as a region of a hepatitis C virus (HCV) target RNA
CC   polynucleotide sequence required for hepatitis C virus infection,
CC   replication or pathogenesis in vitro or in vivo in a host cell. The
CC   oligonucleotide of the invention demonstrates virucide activity and may
CC   be useful for preparing a composition or vaccine for treating or
CC   preventing hepatitis C virus, as well as during gene therapy procedures.
CC   The current sequence is that of the HCV coding region-derived conserved
CC   RNA sequence of the invention.
XX
SQ   Sequence 19 BP; 6 A; 11 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        437 CACCAGCCGGCGCCCAC 453
              ||||| ||| |||||||
Db          3 CACCAACCGCCGCCCAC 19


RESULT 4593
ADD00278
ID   ADD00278 standard; RNA; 19 BP.
XX
AC   ADD00278;
XX
DT   01-JAN-2004  (first entry)
XX
DE   HCV coding region-derived 50% conserved RNA sequence 224.
XX
KW   HCV infection; replication; pathogenesis; virucide; vaccine;
KW   gene therapy; ds.
XX
OS   Hepatitis C virus.
XX
```

PN WO2003016572-A1.
XX
PD 27-FEB-2003.
XX
PF 16-AUG-2002; 2002WO-US021843.
XX
PR 17-AUG-2001; 2001US-0313076P.
PR 20-DEC-2001; 2001US-0344116P.
PR 01-FEB-2002; 2002US-0353750P.
XX
PA (ELIL) LILLY & CO ELI.
XX
PI Zhao G, Lu J, Glass JI, Martinez A, Yang Y;
XX
DR WPI; 2003-268345/26.
XX
PT New double stranded RNA oligonucleotide, useful for preparing a
PT composition for treating or preventing hepatitis C virus.
XX
PS Disclosure; Page 63; 173pp; English.
XX
CC The invention relates to a novel isolated double stranded RNA
CC oligonucleotide about 19 to about 25 ribonucleotides in length or its
CC equivalent. One strand of the oligonucleotide comprises the same
CC nucleotide sequence as a region of a hepatitis C virus (HCV) target RNA
CC polynucleotide sequence required for hepatitis C virus infection,
CC replication or pathogenesis in vitro or in vivo in a host cell. The
CC oligonucleotide of the invention demonstrates virucide activity and may
CC be useful for preparing a composition or vaccine for treating or
CC preventing hepatitis C virus, as well as during gene therapy procedures.
CC The current sequence is that of the HCV coding region-derived conserved
CC RNA sequence of the invention.
XX
SQ Sequence 19 BP; 6 A; 11 C; 2 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 437 CACCAGCCGGCGCCCAC 453
||||| ||| |||||||
Db 3 CACCAACCGCCGCCCAC 19

RESULT 4594
ADD19509
ID ADD19509 standard; DNA; 19 BP.
XX
AC ADD19509;
XX
DT 15-JAN-2004 (first entry)
XX
DE Salmo salar SNP PCR primer SEQ ID NO:144.
XX
KW single nucleotide polymorphism; SNP; fish; Salmo salar;
KW Orechromis niloticus; Atlantic halibut; microsatellite; cod;
KW polymorphic site; seabass; salmonidae; Tilapia; rainbow trout; halibut;
KW detection; primer; ss.
XX
OS Synthetic.
OS Salmo salar.
XX
PN WO2003060160-A2.
XX
PD 24-JUL-2003.
XX
PF 17-JAN-2003; 2003WO-IB000112.
XX
PR 18-JAN-2002; 2002US-0349950P.
PR 16-AUG-2002; 2002US-0404200P.
XX
PA (GENO-) GENOMAR ASA.
XX
PI Lie O, Slettan A, Hoyum M, Lingaas F;
XX
DR WPI; 2003-627388/59.
XX
PT Novel isolated nucleic acid molecule comprising single nucleotide
PT polymorphism associated with fish, useful for forming PCR primers which
PT are used for detecting single nucleotide polymorphisms in fish nucleic
PT acids.
XX
PS Claim 5; SEQ ID NO 144; 233pp; English.
XX
CC The present invention describes an isolated nucleic acid (I) comprising a
CC single nucleotide polymorphism (SNP) chosen from: (i) a nucleic acid of
CC Salmo salar SNPs, Oreochromis niloticus SNPs or Atlantic halibut SNPs;
CC and (ii) a nucleic acid having nucleotide sequence that hybridises to
CC (i), or its complement under highly stringent hybridisation conditions.
CC Also described: (1) an isolated oligonucleotide (II) comprising at least
CC 17 contiguous nucleotides of a nucleotide sequence of S. salar SNPs, O.
CC niloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, cod
CC polymorphic sites and seabass polymorphic sites, or their complement; (2)
CC a primer pair (III) suitable for use in PCR, comprising two (II) capable
CC of amplifying a nucleotide sequence chosen from S. salar SNPs and, O.
CC niloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, cod
CC polymorphic sites and seabass polymorphic sites; and determining (M1) the
CC origin of fish sample comprising providing a parentage genotype database
CC comprising a collection of candidate parent genotypes, where each of the
CC candidate parent genotype represents a distinct origin, and comparing a
CC sample genotype to the parentage genotype database, where a match between
CC the sample genotype and one of the candidate parent genotype identifies
CC to the origin of the sample. (M1) is useful for determining the origin of
CC a fish sample such as family salmonidae, S. salar, Tilapia, O. niloticus,
CC rainbow trout, halibut, seabass and Atlantic cod. (II) is useful for
CC detecting nucleic acid molecule comprising SNP in a sample, which
CC invclves contacting the sample containing nucleic acids with one or more
CC (II) derived from nucleotide sequence of S. salar SNPs and O. niloticus
CC SNPs, and identifying nucleic acid that hybridises to (II). (II) is
CC useful for detecting nucleic acid molecule comprising a polymorphic
CC sequence in a sample, comprising contacting the sample containing nucleic
CC acids with one or more (II) which is derived from O. niloticus
CC microsatellite, O. niloticus SNPs, Atlantic halibut SNPs, cod polymorphic
CC sites or seabass polymorphic sites, and identifying a nucleic acid that
CC hybridises to (II). (III) is useful for detecting nucleic acid molecule
CC comprising a microsatellite sequence in sample. The present sequence is
CC used in the exemplification of the present invention.
XX
SQ Sequence 19 BP; 5 A; 6 C; 5 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3.9e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 269 GCCGGGCAGCACCTCTA 285
||| ||||||| |||||
Db 2 GCCAGGCAGCAGCTCTA 18

RESULT 4595
ADE65619
ID ADE65619 standard; RNA; 19 BP.
XX
AC ADE65619;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human c-fos transcript target sequence/siNA upper strand, SEQ ID NO:74.
XX
KW RNA interference; short interfering nucleic acid; siNA;
KW short interfering RNA; siRNA; double-stranded RNA; micro-RNA; miRNA;
KW short hairpin RNA; shRNA; expression modulation; gene therapy;
KW drug screening; diagnosis; therapeutic target identification;
KW pharmacogenomics; gene function analysis; gene mapping;
KW central nervous system disorder; Alzheimer's disease;
KW Parkinson's disease; Huntington's disease; epilepsy; dementia;

```
KW   amyotrophic lateral sclerosis; cancer; proliferative disease; restenosis;
KW   polycystic kidney disease; inflammatory disease; allergic disease;
KW   viral infection; HIV infection; autoimmune disease; transplant rejection;
KW   vasotropic; nootropic; antiparkinsonian; neuroprotective; cytostatic;
KW   antiinflammatory; antiallergic; virucide; anti-HIV; immunosuppressive;
KW   anticonvulsant; nephrotropic; human; c-fos; target sequence; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003070914-A2.
XX
PD   28-AUG-2003.
XX
PF   20-FEB-2003; 2003WO-US005162.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L;
XX
DR   WPI; 2003-679877/64.
XX
PT   New short interfering nucleic acid downregulates expression of the c-fos
PT   gene useful for treatment and diagnosis of diseases, e.g. cancer and
PT   inflammation.
XX
PS   Example 3; SEQ ID NO 74; 145pp; English.
XX
CC   The invention relates to short interfering nucleic acids (siNA) which
CC   downregulate expression of the human c-fos gene by RNA interference. The
CC   siNAs may or may not comprise ribonucleotides and may be double or single
CC   stranded. They further comprise sense and antisense regions, or
CC   alternatively are assembled from a sense oligonucleotide and an antisense
CC   oligonucleotide. Specifically, the siNAs include short interfering RNA
CC   (siRNA), double-stranded RNA, micro-RNA (miRNA) and short hairpin RNA
CC   (shRNA). The siNAs can be unmodified or chemically modified, can contain
CC   deoxyribonucleotides, and can be chemically synthesised, expressed from a
CC   vector or enzymatically synthesised. The invention also relates to kits
CC   for the in vitro or in vivo delivery of siNA; conjugates and/or complexes
CC   of siNA; and vectors that express siNA. The siNAs are used to modulate
CC   expression of the c-fos gene in cells, tissue explants or organisms
CC   (e.g., by ex vivo gene therapy), or in grafts and transplants for the
CC   treatment of a variety of conditions. They may be used for treating
CC   central nervous system lesions and injuries (e.g., Alzheimer's disease,
CC   Parkinson's disease, Huntington's disease, epilepsy, dementia or
CC   amyotrophic lateral sclerosis); various cancers; other proliferative
CC   diseases (e.g., restenosis and polycystic kidney disease); inflammatory
CC   and/or allergic diseases; viral infections (including HIV infection);
CC   autoimmune diseases; and transplant rejection. The siNAs are also useful
CC   for drug screening, diagnosis, therapeutic target identification and
CC   validation, genetic engineering, pharmacogenomics, studying gene
CC   function, and gene mapping (e.g., of single nucleotide polymorphisms).
CC   The present sequence represents the upper strand of a human c-fos-
CC   targeted double-stranded siNA, which is identical to the c-fos transcript
CC   target sequence.
XX
SQ   Sequence 19 BP; 5 A; 8 C; 5 G; 0 T; 1 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        440 CAGCCGGCGCCCACAGG 456
              ||||||||  ||||||  |
Db          2 CAGCCGGCACCCACAAG 18
```

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RESULT 4596
ADE65735/c
ID   ADE65735 standard; RNA; 19 BP.
XX
AC   ADE65735;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human c-fos siNA lower strand, SEQ ID NO:190.
XX
KW   RNA interference; short interfering nucleic acid; siNA;
KW   short interfering RNA; siRNA; double-stranded RNA; micro-RNA; miRNA;
KW   short hairpin RNA; shRNA; expression modulation; gene therapy;
KW   drug screening; diagnosis; therapeutic target identification;
KW   pharmacogenomics; gene function analysis; gene mapping;
KW   central nervous system disorder; Alzheimer's disease;
KW   Parkinson's disease; Huntington's disease; epilepsy; dementia;
KW   amyotrophic lateral sclerosis; cancer; proliferative disease; restenosis;
KW   polycystic kidney disease; inflammatory disease; allergic disease;
KW   viral infection; HIV infection; autoimmune disease; transplant rejection;
KW   vasotropic; nootropic; antiparkinsonian; neuroprotective; cytostatic;
KW   antiinflammatory; antiallergic; virucide; anti-HIV; immunosuppressive;
KW   anticonvulsant; nephrotropic; human; c-fos; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003070914-A2.
XX
PD   28-AUG-2003.
XX
PF   20-FEB-2003; 2003WO-US005162.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L;
XX
DR   WPI; 2003-679877/64.
XX
PT   New short interfering nucleic acid downregulates expression of the c-fos
PT   gene useful for treatment and diagnosis of diseases, e.g. cancer and
PT   inflammation.
XX
PS   Example 3; SEQ ID NO 190; 145pp; English.
XX
CC   The invention relates to short interfering nucleic acids (siNA) which
CC   downregulate expression of the human c-fos gene by RNA interference. The
CC   siNAs may or may not comprise ribonucleotides and may be double or single
CC   stranded. They further comprise sense and antisense regions, or
CC   alternatively are assembled from a sense oligonucleotide and an antisense
CC   oligonucleotide. Specifically, the siNAs include short interfering RNA
CC   (siRNA), double-stranded RNA, micro-RNA (miRNA) and short hairpin RNA
CC   (shRNA). The siNAs can be unmodified or chemically modified, can contain
CC   deoxyribonucleotides, and can be chemically synthesised, expressed from a
CC   vector or enzymatically synthesised. The invention also relates to kits
CC   for the in vitro or in vivo delivery of siNA; conjugates and/or complexes
CC   of siNA; and vectors that express siNA. The siNAs are used to modulate
CC   expression of the c-fos gene in cells, tissue explants or organisms
CC   (e.g., by ex vivo gene therapy), or in grafts and transplants for the
CC   treatment of a variety of conditions. They may be used for treating
CC   central nervous system lesions and injuries (e.g., Alzheimer's disease,
CC   Parkinson's disease, Huntington's disease, epilepsy, dementia or
CC   amyotrophic lateral sclerosis); various cancers; other proliferative
CC   diseases (e.g., restenosis and polycystic kidney disease); inflammatory
CC   and/or allergic diseases; viral infections (including HIV infection);
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CC   autoimmune diseases; and transplant rejection. The siNAs are also useful
CC   for drug screening, diagnosis, therapeutic target identification and
CC   validation, genetic engineering, pharmacogenomics, studying gene
CC   function, and gene mapping (e.g., of single nucleotide polymorphisms).
CC   The present sequence represents the lower strand of a human c-fos-
CC   targeted double-stranded siNA.
XX
SQ   Sequence 19 BP; 1 A; 5 C; 8 G; 0 T; 5 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        440 CAGCCGGCGCCCACAGG 456
              ||||||||  ||||||  |
Db         18 CAGCCGGCACCCACAAG 2


RESULT 4597
ADE36637/c
ID   ADE36637 standard; DNA; 19 BP.
XX
AC   ADE36637;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human ERG gene PCR primer.
XX
KW   foetal aneuploidy; foetal allele; detection; foetal DNA; prenatal;
KW   chromosome aberration; chromosome mutation; PCR primer; human; ERG gene;
KW   chromosome 21; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO2003062441-A1.
XX
PD   31-JUL-2003.
XX
PF   17-JAN-2003; 2003WO-US001551.
XX
PR   18-JAN-2002; 2002US-0349877P.
XX
PA   (GENZ ) GENZYME CORP.
XX
PI   Landes GM,  Michalowsky L,  Miller G,  Weber W;
XX
DR   WPI; 2003-902657/82.
XX
PT   Detecting fetal aneuploidies or alleles of a gene of interest in fetal
PT   DNA by determining the ratio of methylated and unmethylated DNA in
PT   maternal serum is useful for prenatal detection of chromosome aberrations
PT   and mutations.
XX
PS   Example 4; Page 17; 31pp; English.
XX
CC   The present invention describes methods for detecting foetal
CC   aneuploidies, alleles of a gene of interest in foetal DNA and imprinted
CC   genes in a subject. Also described: (1) detecting foetal aneuploidies
CC   comprising treating DNA from maternal serum with a reagent that
CC   differentially modifies methylated and non-methylated DNA and performing
CC   quantitative PCR using one primer pair on a potentially aneuploid
CC   chromosome and a on a non-aneuploid chromosome with an different primer
CC   pair and comparing the ratio of the quantity of the two PCR products; (2)
CC   detecting alleles of a gene of interest in foetal DNA, comprising
CC   treating DNA isolated from maternal serum with bisulfite, performing PCR
CC   with a primer pair that amplifies the gene of interest and analysing the
CC   PCR product to identify the allele of the gene of interest; (3) detecting
CC   imprinted genes in a subject comprises treating DNA isolated from the
CC   subject with bisulfite, performing PCR with a primer pair for a
CC   polymorphic region that only amplifies bisulfite-treated unmethylated DNA
CC   and analysing the PCR product to identify the polymorphism thereby
CC   detecting imprinted genes. The invention is used for prenatal detection
CC   of chromosome aberrations and mutations. The present sequence represents
CC   a PCR primer for the human ERG gene, which is used in an example from the
CC   present invention. The human ERG gene is located on chromosome 21 within
CC   the Down's critical region.
XX
SQ   Sequence 19 BP; 3 A; 10 C; 0 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1535 AGGTTAGGAGAGTAGGG 1551
              |||||||||||| | ||
Db         17 AGGTTAGGAGAGGAAGG 1


RESULT 4598
ADE43577
ID   ADE43577 standard; DNA; 19 BP.
XX
AC   ADE43577;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human IDE sequencing primer, SEQ ID 182.
XX
KW   Neurodegenerative disease; uPA; SNCG; IDE; KNSL1; LIPA; TNFRSF6;
KW   Alzheimer's disease; neuroprotective; nootropic; gene therapy;
KW   Chromosome 10; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003054143-A2.
XX
PD   03-JUL-2003.
XX
PF   25-OCT-2002; 2002WO-US034679.
XX
PR   25-OCT-2001; 2001US-0339525P.
PR   08-NOV-2001; 2001US-0336929P.
PR   08-NOV-2001; 2001US-0338010P.
PR   09-NOV-2001; 2001US-0338363P.
PR   04-DEC-2001; 2001US-0337052P.
PR   28-MAR-2002; 2002US-0368919P.
XX
PA   (NEUR-) NEUROGENETICS INC.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Becker KD,  Velicelebi G,  Elliott KJ,  Wang X,  Tanzi RE,  Bertram L;
PI   Saunders AJ,  Mullin KM,  Sampson AJ,  Blacker DL;
XX
DR   WPI; 2003-559131/52.
XX
PT   Determining a predisposition for or the occurrence of neurodegenerative
PT   disease, e.g. Alzheimer's disease by detecting in a target nucleic acid
PT   the presence or absence of an allelic variant of one or more polymorphic
PT   regions.
XX
PS   Example 3; Page 277; 848pp; English.
XX
CC   The present invention relates to a method (M1) for determining a
CC   predisposition for or the occurrence of neurodegenerative disease in a
CC   subject. The method comprises detecting in a target nucleic acid obtained
CC   from the subject the presence or absence of an allelic variant of one or
CC   more polymorphic regions of one or more genes selected from uPA
CC   (Urokinase plasminogen activator), SNCG (gamma-synuclein), IDE (insulin-
CC   degrading enzyme), KNSL1 (Kinesin-like protein 1), LIPA (lysosomal acid
CC   lypase), and TNFRSF6 (Tumour Necrosis Factor Receptor-SF6), where the
CC   presence of at least one of the allelic variant of one or more
CC   polymorphic regions is indicative of a predisposition for or the
CC   occurrence of neurodegenerative disease. The genes are all located on
CC   chromosome 10. M1 is useful for determining a predisposition for or the
CC   occurrence of, and for treating neurodegenerative disease, particularly
```

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CC   Alzheimer's disease. The present sequence is a PCR primer, which was used
CC   in the method of the invention.
XX
SQ   Sequence 19 BP; 9 A; 3 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1529 GAAGAAAGGTTAGGAGA 1545
              ||||||||| || |||
Db          3 GAAGAAAGGTCAGCAGA 19


RESULT 4599
ADE29797
ID   ADE29797 standard; RNA; 19 BP.
XX
AC   ADE29797;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Mitogen activated protein kinase siNA oligonucleotide SEQ ID NO:419.
XX
KW   short interfering nucleic acid; siNA; downregulation; inhibition;
KW   mitogen-activated protein kinase; MAP kinase; MAPK; RNA interference;
KW   cytostatic; anorectic; antidiabetic; antiinflammatory; antiasthmatic;
KW   immunosuppressive; antibacterial; antirheumatic; antiarthritic;
KW   antipsoriatic; gastrointestinal; obesity; diabetes; tumour;
KW   inflammatory disease; asthma; septic shock; rheumatoid arthritis;
KW   psoriasis; inflammatory bowel disease; drug screening;
KW   genetic engineering; pharmacogenomic; gene mapping; ss.
XX
OS   Synthetic.
XX
PN   WO2003072590-A1.
XX
PD   04-SEP-2003.
XX
PF   28-JAN-2003; 2003WO-US002510.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L,  Usman N,  Haeberli P,  Chowrira B;
XX
DR   WPI; 2003-689980/65.
XX
PT   New short interfering nucleic acid, useful e.g. for treatment and
PT   diagnosis of cancer, downregulates expression of mitogen-activated
PT   protein kinase genes.
XX
PS   Example 3; SEQ ID NO 419; 164pp; English.
XX
CC   The present invention describes a short interfering nucleic acid (siNA)
CC   that downregulates expression of a mitogen-activated protein kinase
CC   (MAPK) genes by RNA interference. Also described: (1) a method for
CC   modulating expression of MAPK genes in cells, tissue explants or
CC   organisms by introduction of siNA; (2) kits for in vitro or in vivo
CC   delivery of siNA; (3) conjugates and/or complexes of siNA; and (4)
CC   vectors that express siNA and cells containing these vectors. MAPK siNAs
CC   have cytostatic, anorectic, antidiabetic, antiinflammatory,
CC   antiasthmatic, immunosuppressive, antibacterial, antirheumatic,
CC   antiarthritic, antipsoriatic and gastrointestinal activities. The MAPK
CC   siNAs can be used to modulate the expression of MAPK genes, in cells,
CC   tissue explants or organisms, e.g. for treating obesity; diabetes types I
CC   and II; a wide range of tumours, and inflammatory diseases (asthma,
CC   septic shock, rheumatoid arthritis, psoriasis and inflammatory bowel
CC   disease). They can also be used for drug screening; diagnosis; target
CC   identification and validation; genetic engineering; pharmacogenomics;
CC   studying gene function and gene mapping (e.g. of single-nucleotide
CC   polymorphisms). The present sequence represents a MAPK siNA which is used
CC   in the exemplification of the present invention.
XX
SQ   Sequence 19 BP; 3 A; 10 C; 1 G; 0 T; 5 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   64.7%;  Pred. No. 3.9e+03;
  Matches   11;  Conservative    4;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        333 CGCCACCCTACTTTCCC 349
              | |||||:| :::|||
Db          2 CCCCACCCUAGUUUCCC 18


RESULT 4600
ADE29902/c
ID   ADE29902 standard; RNA; 19 BP.
XX
AC   ADE29902;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Mitogen activated protein kinase siNA oligonucleotide SEQ ID NO:524.
XX
KW   short interfering nucleic acid; siNA; downregulation; inhibition;
KW   mitogen-activated protein kinase; MAP kinase; MAPK; RNA interference;
KW   cytostatic; anorectic; antidiabetic; antiinflammatory; antiasthmatic;
KW   immunosuppressive; antibacterial; antirheumatic; antiarthritic;
KW   antipsoriatic; gastrointestinal; obesity; diabetes; tumour;
KW   inflammatory disease; asthma; septic shock; rheumatoid arthritis;
KW   psoriasis; inflammatory bowel disease; drug screening;
KW   genetic engineering; pharmacogenomic; gene mapping; ss.
XX
OS   Synthetic.
XX
PN   WO2003072590-A1.
XX
PD   04-SEP-2003.
XX
PF   28-JAN-2003; 2003WO-US002510.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L,  Usman N,  Haeberli P,  Chowrira B;
XX
DR   WPI; 2003-689980/65.
XX
PT   New short interfering nucleic acid, useful e.g. for treatment and
PT   diagnosis of cancer, downregulates expression of mitogen-activated
PT   protein kinase genes.
XX
PS   Example 3; SEQ ID NO 524; 164pp; English.
XX
CC   The present invention describes a short interfering nucleic acid (siNA)
CC   that downregulates expression of a mitogen-activated protein kinase
CC   (MAPK) genes by RNA interference. Also described: (1) a method for
CC   modulating expression of MAPK genes in cells, tissue explants or
CC   organisms by introduction of siNA; (2) kits for in vitro or in vivo
CC   delivery of siNA; (3) conjugates and/or complexes of siNA; and (4)
CC   vectors that express siNA and cells containing these vectors. MAPK siNAs
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CC   have cytostatic, anorectic, antidiabetic, antiinflammatory,
CC   antiasthmatic, immunosuppressive, antibacterial, antirheumatic,
CC   antiarthritic, antipsoriatic and gastrointestinal activities. The MAPK
CC   siNAs can be used to modulate the expression of MAPK genes, in cells,
CC   tissue explants or organisms, e.g. for treating obesity; diabetes types I
CC   and II; a wide range of tumours, and inflammatory diseases (asthma,
CC   septic shock, rheumatoid arthritis, psoriasis and inflammatory bowel
CC   disease). They can also be used for drug screening; diagnosis; target
CC   identification and validation; genetic engineering; pharmacogenomics;
CC   studying gene function and gene mapping (e.g. of single-nucleotide
CC   polymorphisms). The present sequence represents a MAPK siNA which is used
CC   in the exemplification of the present invention.
XX
SQ   Sequence 19 BP; 5 A; 1 C; 10 G; 0 T; 3 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3.9e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        333 CGCCACCCTACTTTCCC 349
              | ||||||||| ||||||
Db         18 CCCCACCCTAGTTTCCC 2


RESULT 4601
AAA94537/c
ID   AAA94537 standard; DNA; 20 BP.
XX
AC   AAA94537;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20977 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Optionally the internucleotide linkages are
FT                   phosphorothioate"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 40; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 4 A; 2 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1504 GAAACACAGGAAATAAA 1520
              |||||| | ||||||||
Db         20 GAAACAAATGAAATAAA 4


RESULT 4602
ABZ89720
ID   ABZ89720 standard; DNA; 20 BP.
XX
AC   ABZ89720;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4962; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
```

CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 2 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2172 TTTTTTTTTTTTTTAA 2188
||||||||||||| ||
Db 1 TTTTTTTTTTTTCCAA 17

RESULT 4603
AAX32003/c
ID AAX32003 standard; DNA; 20 BP.
XX
AC AAX32003;
XX
DT 14-JUN-1999 (first entry)
XX
DE MSH2 gene specific primer.
XX
KW Allele profile; diagnosis; treatment; pharmacogenetic; breast cancer;
KW CFTR; cystic fibrosis; dystrophin; Duchenne muscular dystrophy; p53;
KW Becker muscular dystrophy; Li-Fraumeni syndrome; neurofibromatosis;
KW colorectal cancer; MSH2 gene; MLH1 gene; BRCA1 gene; BRCA2 gene;
KW BAP1 gene; PCR primer; ss.
XX
OS Synthetic.
XX
PN WO9906598-A2.
XX
PD 11-FEB-1999.
XX
PF 04-AUG-1998; 98WO-US016574.
XX
PR 04-AUG-1997; 97US-00905772.
PR 22-MAY-1998; 98US-00084471.
XX
PA (ONCO-) ONCORMED INC.
XX
PI Murphy PD;
XX
DR WPI; 1999-153820/13.
XX
PT Determining common functional alleles in a population - useful in the
PT diagnosis of disease associated with allelic heterogeneity.
XX
PS Example 1; Page 24; 78pp; English.
XX
CC The invention relates to methods of determining a functional allele
CC profile of a gene in a population. Functional allele profiles comprise
CC the commonly occurring alleles in a population, and the relative
CC frequencies at which such alleles of a given gene occur. The methods are
CC used to identify and determine the frequency of the functional alleles of
CC genes which display extensive allelic heterogeneity, particularly those
CC implicated in disease or conditions, such as the BRCA1 gene associated
CC with breast cancer, CFTR associated with cystic fibrosis, dystrophin
CC associated with Duchenne muscular dystrophy and Becker muscular
CC dystrophy, and p53 associated with Li-Fraumeni syndrome. The methods can
CC also be employed for diseases where allelic and genetic heterogeneity
CC exist, such as breast cancer, neurofibromatosis, and hereditary non-
CC polyposis colorectal cancer. Identification of functional alleles is
CC necessary for identification of mutations which may be implicated in the
CC disease. Sequences AAX32001-172 represent primers for determining the
CC functional allele profiles of various genes. The primers are specific for
CC genes such as MSH2 gene, MLH1 gene, BRCA1 gene, BRCA2 gene and BAP1 gene
XX
SQ Sequence 20 BP; 3 A; 1 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1974 CCTTGAAAAAAAGAAAA 1990
|||| ||||||| ||||
Db 17 CCTTAAAAAAAAAAAAA 1

RESULT 4604
AAC82921/c
ID AAC82921 standard; DNA; 20 BP.
XX
AC AAC82921;
XX
DT 21-MAR-2001 (first entry)
XX
DE Human S-9 derived oligonucleotide #5.
XX
KW Recognition system; screening; identification; pharmaceutical; toxin;
KW plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW herbicide; fungicide; pesticide; beta-actin; human; ss.
XX
OS Homo sapiens.
XX
PN DE19923966-A1.
XX
PD 30-NOV-2000.
XX
PF 25-MAY-1999; 99DE-01023966.
XX
PR 25-MAY-1999; 99DE-01023966.
XX
PA (AVET) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI Boekenkamp D, Hoppe H, Burgstaller P;
XX
DR WPI; 2001-050938/07.
XX
PT Recognition system, e.g. for identifying nucleic acids, comprises at
PT least one recognition unit comprising a region with a defined structure
PT adjacent to a region with a randomized structure.
XX
PS Example; Fig 1; 8pp; German.
XX
CC This invention describes a novel recognition system comprising at least 1
CC recognition unit bound to a support, each recognition unit comprising a
CC region A with a defined structure adjacent to a region B with a
CC randomized structure. The recognition system is useful for screening,
CC identifying, or characterizing at least 1 component of a sample,
CC especially nucleic acids and/or proteins, and for screening for and/or
CC identifying cellular or synthetic binding partners, preferably proteins,
CC peptides, nucleic acids, chemical agents, preferably organic compounds,
CC pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC teratogens, herbicides, fungicides or pesticides
XX
SQ Sequence 20 BP; 2 A; 2 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1974 CCTTGAAAAAAAGAAAA 1990
              |||| ||||||| ||||
Db         17 CCTTAAAAAAAAAAAAA 1

RESULT 4605
ADA45244/c
ID   ADA45244 standard; DNA; 20 BP.
XX
AC   ADA45244;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human MSH2 gene PCR primer #3.
XX
KW   Functional allele profile; genetic inheritance; haplotype; population;
KW   disease; pharmacogenetic application; selective pressure; human; MSH2;
KW   MLH1; BRCA1; BRCA2; PTEN; BAP1; BARD1; p53; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2003096236-A1.
XX
PD   22-MAY-2003.
XX
PF   08-AUG-2001; 2001US-00923327.
XX
PR   12-FEB-1996;   96US-00598591.
PR   12-FEB-1997;   97US-00798691.
PR   04-AUG-1997;   97US-00905772.
PR   22-MAY-1998;   98US-00084471.
PR   04-AUG-1998;   98US-00129134.
PR   14-MAR-2000; 2000US-00524794.
XX
PA   (ONCO-) ONCORMED INC.
XX
PI   Murphy PD;
XX
DR   WPI; 2003-576875/54.
XX
PT   Determining a functional allele profile of a gene in a population by
PT   identifying the nucleotide sequence of a gene of genomic DNA from each of
PT   the individuals with a family history of functional alleles of the gene
PT   of interest.
XX
PS   Example 1; Page 9; 28pp; English.
XX
CC   The present invention relates to a method for determining a functional
CC   allele profile of a gene in a population. The method comprises
CC   identifying the nucleotide sequence of a gene of interest out of genomic
CC   DNA from each of a population of individuals identified as having a
CC   family history which indicates inheritance of functional alleles of the
CC   gene of interest, and rank ordering the frequency of occurrence of each
CC   haplotype, where the identity of the alleles containing each haplotype
CC   and the determination of their relative frequencies constitutes the
CC   functional allele profile of the gene of interest in the population. The
CC   method is useful for determining functional allele profiles which are
CC   useful in the treatment and diagnosis of diseases, for genetic and
CC   pharmacogenetic applications, and for evaluating the degree to which the
CC   gene(s) are under selective pressure. The present sequence represents a
CC   PCR primer used in the method of the invention.
XX
SQ   Sequence 20 BP; 3 A; 1 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1974 CCTTGAAAAAAAGAAAA 1990
              |||| ||||||| ||||
Db         17 CCTTAAAAAAAAAAAAA 1
```

```
RESULT 4606
AAQ20027
ID   AAQ20027 standard; DNA; 20 BP.
XX
AC   AAQ20027;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 112 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   misc_feature    14. .20
FT                   /*tag=  c
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine group. See also AAQ20026-Q20030
XX
SQ   Sequence 20 BP; 1 A; 4 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
```

```
Qy       2162 CTCCTTTTTTTTTTTTT 2178
              || |||||||||| |||
Db          1 CTTCTTTTTTTTTCTTT 17


RESULT 4607
AAQ30372
ID   AAQ30372 standard; DNA; 20 BP.
XX
AC   AAQ30372;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 112 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N4 N4 ethanocytosine"
FT   modified_base    4
FT                    /*tag=  b
FT                    /mod_base= m5c
FT   misc_feature     13. .14
FT                    /*tag=  g
FT                    /note= "o-xyloso dimer synthon linkage"
FT   misc_feature     14. .20
FT                    /*tag=  f
FT                    /label= inverted_polarity_region
FT                    /note= "see comments"
FT   modified_base    14
FT                    /*tag=  c
FT                    /mod_base= m5c
FT   modified_base    18
FT                    /*tag=  d
FT                    /mod_base= m5c
FT   modified_base    19
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 20 BP; 1 A; 4 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2162 CTCCTTTTTTTTTTTTT 2178
              || |||||||||| |||
Db          1 CTTCTTTTTTTTTCTTT 17


RESULT 4608
AAA94534
ID   AAA94534 standard; DNA; 20 BP.
XX
AC   AAA94534;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20974 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Optionally the internucleotide linkages are
FT                    phosphorothioate"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                    and cytidine residues are 5-methylcytidines"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                    and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
```

XX
PI Cowsert LM;
XX
DR WPI; 2000-586346/55.
XX
PT New antisense compounds for modulating the expression of G-alpha-S1,
PT especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT prevent or delay infection, inflammation or tumor formation.
XX
PS Claim 3; Col 40; 37pp; English.
XX
CC The present invention relates to antisense compounds 8-30 bases long
CC targeted to a coding region, a stop codon, or a 3' untranslated region of
CC human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC hybridize with and inhibit the expression of human G-alpha-S1. The
CC antisense compounds are useful for diagnostics, therapeutics and
CC prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC formation. Particularly, the antisense oligonucleotides are useful for
CC treating humans prone to a disease or condition associated with
CC expression of G-alpha-S1. The present sequence an antisense
CC oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC S1
XX
SQ Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2267 TTTATTTCAGATGTTTC 2283
||||||||| ||||||
Db 1 TTTATTTCATTTGTTTC 17

RESULT 4609
ABZ89084/c
ID ABZ89084 standard; DNA; 20 BP.
XX
AC ABZ89084;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4326; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 16 A; 1 C; 3 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTTT 2182
||||||||||||| || |
Db 20 TTTTTTTTTTTTCTTCT 4

RESULT 4610
ACF57337/c
ID ACF57337 standard; DNA; 20 BP.
XX
AC ACF57337;
XX
DT 16-OCT-2003 (first entry)
XX
DE Human atlastin exon 10 intronic acceptor splice site.
XX
KW Human; atlastin; chromosome 14; 14q22.1; hereditary spastic paraplegia;
KW HSP; neuroprotective; gene therapy; intronic splice site; gene; ds.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO2003026566-A2.
XX
PD 03-APR-2003.
XX
PF 13-SEP-2002; 2002WO-US029165.
XX
PR 21-SEP-2001; 2001US-0323997P.
PR 12-SEP-2002; 2002US-00242008.
XX
PA (UNMI) UNIV MICHIGAN.
XX
PI Fink JK, Zhao X;
XX
DR WPI; 2003-371871/35.
XX
PT New atlastin gene, useful for preparing a composition for treating
PT Hereditary Spastic Paraplegia (HSP) or for identifying subjects who have,
PT or at risk of developing, HSP.
XX
PS Example 6; Page 102; 111pp; English.
XX
CC The present invention describes human atlastin, which is located to
CC chromosome 14 (more specifically to 14q22.1). Also described: (1) an

CC isolated atlastin polypeptide; (2) identifying subjects who have, or are
CC at risk of developing, hereditary spastic paraplegia (HSP); (3) a kit for
CC determining if a subject has, or at risk of developing, HSP; (4) a
CC computer readable medium encoding a representation of the atlastin
CC nucleic acid sequence or polypeptide; (6) identifying subjects at risk of
CC carrying an allele for HSP; and (7) treating a patient with HSP. Atlastin
CC has neuroprotective activity and can be used in gene therapy. The
CC atlastin nucleic acid is useful for preparing a composition for treating
CC HSP or for identifying subjects who have, or at risk of developing, HSP.
CC The present sequence represents an atlastin intronic splice site
CC oligonucleotide, which is given in an example from the present invention
XX
SQ Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2802
||||||||| ||||| |
Db 18 AAAAAAAAAGAAAAAGA 2

RESULT 4611
AAA55978/c
ID AAA55978 standard; DNA; 20 BP.
XX
AC AAA55978;
XX
DT 05-SEP-2000 (first entry)
XX
DE Human G713 PCR primer SEQ ID NO:17.
XX
KW Human; chromosome 13; G713; chromosome 13q31-q33; schizophrenia;
KW biallelic marker; polymorphism; central nervous disease; detection;
KW neuroleptic; G713 gene expression inhibitor; genotyping; PCR primer;
KW brain disorder; psychiatric disorder; bipolar disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200022122-A2.
XX
PD 20-APR-2000.
XX
PF 12-OCT-1999; 99WO-IB001730.
XX
PR 13-OCT-1998; 98US-0103955P.
PR 30-OCT-1998; 98US-0106457P.
XX
PA (GEST) GENSET.
XX
PI Blumenfeld M, Bougueleret L, Chumakov I, Cohen D, Essioux L;
XX
DR WPI; 2000-317979/27.
XX
PT Novel polynucleotide of human G713 gene useful for diagnosis and
PT prophylactic treatment of brain, psychiatric disorders like schizophrenia
PT and bipolar disorders.
XX
PS Disclosure; Page 26; 271pp; English.
XX
CC The present invention describes an isolated, purified or recombinant
CC polynucleotide (PN) (I) comprising a contiguous span of 8 to 50
CC nucleotides, where the span includes a G713 or chromosome 13q31-q33
CC related biallelic marker. (I) has neuroleptic activity and can be used as
CC a G713 gene expression inhibitor. (I) can be used genotyping to estimate
CC the frequency of an allele of a G713 or chromosome 13q31-q33 related
CC biallelic marker in a population, and of a haplotype for a set of
CC biallelic markers in a population. (I) is also useful in detecting an
CC association between a haplotype and a trait. The frequency is used for
CC detecting an association between a genotype and a trait being
CC schizophrenia. The genotype is used to determine whether an individual is
CC at risk of developing schizophrenia. (I) can also be used as a medicament
CC against several disorders preferably brain, psychiatric disorders such as
CC schizophrenia and bipolar disorder. Early identification of risk of
CC developing schizophrenia is possible, which would enable early and/or
CC prophylactic treatment. AAA55964 to AAA55966 represent human G713 genomic
CC DNA sequences; AAA55967 encodes the human G713 protein AAY90962; AAA55968
CC encodes the murine G713 protein AAY90963; AAA55992 to AAA56030 represent
CC human chromosome 13q31-q33 locus biallelic markers A12 to A49; AAA55969
CC to AAA55991, and AAA56031 and AAA56032 represent PCR primers used in the
CC exemplification of the present invention
XX
SQ Sequence 20 BP; 3 A; 1 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2784 TGAAAAAAAAAAAAAAA 2800
|| |||||||||||||
Db 17 TGTCAAAAAAAAAAAAA 1

RESULT 4612
ABZ89489
ID ABZ89489 standard; DNA; 20 BP.
XX
AC ABZ89489;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4731; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also

CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 16 A; 2 C; 0 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2802
| | ||||||||||||||
Db 1 ACATAAAAAAAAAAAA 17

RESULT 4613
AAQ43126
ID AAQ43126 standard; DNA; 20 BP.
XX
AC AAQ43126;
XX
DT 25-MAR-2003 (revised)
DT 23-SEP-1993 (first entry)
XX
DE HCV type 2 NS-4 sense primer 281.
XX
KW Non-coding region; hepatitis C virus; blood donor; type 2; type 1; HCV;
KW NS-5; phylogeny; differentiation; NS-3; core region; type 3; PCR;
KW amplify; polymerase chain reaction; primer; NS4; ss.
XX
OS Synthetic.
XX
PN WO9310239-A2.
XX
PD 27-MAY-1993.
XX
PF 20-NOV-1992; 92WO-GB002143.
XX
PR 21-NOV-1991; 91GB-00024696.
PR 24-JUN-1992; 92GB-00013362.
XX
PA (COMM-) COMMON SERVICES AGENCY.
XX
PI Simmonds P, Chan S, Yap PL;
XX
DR WPI; 1993-182554/22.
XX
PT DNA encoding antigenic peptide(s) of new types of hepatitis C virus - for
PT diagnosing and treating HCV infection, screening blood samples and
PT identifying different HCV types.
XX
PS Disclosure; Page 27; 120pp; English.
XX
CC The sequences given in AAQ43112-33 are primers which were used to amplify
CC specific regions of the hepatitis C virus (HCV) genome. Analysis of
CC regions of the HCV genome revealed the existance of three distinct groups
CC of HCV. Analysis of the region encompassing -255 to -62 of the 5' non
CC coding region (NCR) (see AAQ43058-75) showed a difference of 9-14% in the
CC nucleotide sequences between the three groups. Two of the groups
CC identified were similar to those of HCV varients termed type 1 and 2,
CC whilst the third appeared to represent a novel type of virus. Comparison
CC of the NS3 region (see AAR37927-30) showed a high degree of sequence
CC diversity with type 3 being phylo- genetically different to type 1 and 2.
CC The same degree different- iation was noted in the NS-5 (see AAR37923-
CC 26), core region (see AAR37931) and the NS4 region (see AAQ43106-111)
CC between type 3 and type 1 sequences. (Updated on 25-MAR-2003 to correct
CC PN field.)
XX
SQ Sequence 20 BP; 2 A; 10 C; 3 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 250 GGTCCCCCACCTCTCCT 266
|||||| | ||||||||
Db 1 GGTCCCACCCCTCTCCT 17

RESULT 4614
AAQ41528/c
ID AAQ41528 standard; DNA; 20 BP.
XX
AC AAQ41528;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1993 (first entry)
XX
DE Antisense oligomer targetting EBER-2 internal sequence.
XX
KW Epstein Barr virus; EBV; hybridisation; antisense modulator; replication;
KW nasopharyngeal carcinoma; Burkitt lymphoma; Sjogren's; syndrome;
KW infectious mononucleosis; latent; active; infection; ss.
XX
OS Synthetic.
XX
PN WO9307882-A1.
XX
PD 29-APR-1993.
XX
PF 23-OCT-1992; 92WO-US008989.
XX
PR 25-OCT-1991; 91US-00783605.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Anderson KP, Ecker DJ;
XX
DR WPI; 1993-152174/18.
XX
PT Oligo:nucleotide(s) hybridising with RNA of Epstein Barr virus - for
PT treating active, latent and chronic EBV infections and associated
PT diseases e.g. nasopharyngeal carcinoma, Burkitt's lymphoma.
XX
PS Claim 1; Page 20; 45pp; English.
XX
CC The synthetic peptide is an antisense modulator of Epstein Barr virus and
CC pref. contains at least one phosphorothioate linking gp. and
CC modifications in the 2' position. These modifications improve penetration
CC into regions of the cell that contain nucleic acid and also resistance to
CC degradation by nucleases. The oligonucleotide targets an EBER-2 internal
CC sequence and hybridises, thus inhibiting replication of EBV. The oligomer
CC may be used for treating or preventing EBV-associated diseases, e.g.
CC nasopharyngeal carcinoma, Burkitt's lymphoma, Sjogren's syndrome,
CC infectious mononucleosis etc. The oligomer is effective against both
CC latent and active EBV infection. See also AAQ40575-9 and AAQ41517-44.
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 20 BP; 5 A; 5 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2068 AGTGGTATCTGACACAC 2084
|||||| || |||||||
Db 18 AGTGGTTTCGGACACAC 2

RESULT 4615

```
AAQ47650/c
ID   AAQ47650 standard; cDNA to mRNA; 20 BP.
XX
AC   AAQ47650;
XX
DT   25-MAR-2003  (revised)
DT   26-JAN-1994  (first entry)
XX
DE   Mouse jun-B MUSJUNBA/C-2219 human-rodent common c-jun probe.
XX
KW   quantification; GTP binding protein; G protein; diagnosis; alpha subunit;
KW   specific mRNA; detection; hybridisation; pathophysiology; disease state;
KW   hereditary; cancer; infectious; osteodystrophy; pituitary tumour;
KW   acromegaly; melanoma cells; diabetes; PCR; polymerase chain reaction;
KW   specific; ss.
XX
OS   Synthetic.
XX
PN   WO9315221-A1.
XX
PD   05-AUG-1993.
XX
PF   29-JAN-1993;   93WO-US000977.
XX
PR   29-JAN-1992;   92US-00827208.
PR   24-MAR-1992;   92US-00857059.
PR   12-NOV-1992;   92US-00974409.
XX
PA   (HITB ) HITACHI CHEM CO LTD.
PA   (HITB ) HITACHI CHEM RES CENT INC.
XX
PI   Akitaya T,  Cooper A,  Mitsuhashi M;
XX
DR   WPI; 1993-258695/32.
XX
PT   Quantitating messenger RNA in sample - using immobilised-polynucleotide
PT   having sequence complementary to sequence unique to the MRNA.
XX
PS   Example 9; Page 76; 177pp; English.
XX
CC   The sequences given in AAQ47650-53 show regions of homology between jun
CC   sequences and the human-rodent common c-jun specific probe C-2219 which
CC   may be of use as c-jun specific probes. They were used in the method of
CC   the invention for the detection and quantification of mRNAs in a sample
CC   without the need to purify the mRNA from cells. The claimed method
CC   comprises identifying a polynucleotide sequence unique to the mRNA, and
CC   immobilising an oligomer complementary to this sequence to an insoluble
CC   support. The sample is then incubated with the insoluble support such
CC   that the unique sequence will hybridise to the bound oligomer and be
CC   immobilised. Non-immobilised components are washed from the support and
CC   bound RNA is labelled in such a way that the label is incorporated onto
CC   the support relative to the amount of mRNA on the support. The amount of
CC   bound label is then determined. This method can be used for the reliable,
CC   rapid, simultaneous quantification of multiple varieties of mRNA. It may
CC   be used for diagnosing and recognition of pathophysiology of various
CC   disease states, eg. hereditary diseases, cancer, and infectious diseases.
CC   G proteins are thought to be involved in causing various disease states.
CC   A genetic deficiency of Gs protein is the molecular basis of hereditary
CC   osteodystrophy. Pituitary tumours in acromegalic patients have been shown
CC   to contain mutant Gs proteins. G proteins are also involved in invasive
CC   and metastatic melanoma cells, and diabetes. See also AAQ47381-666.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 2 A; 5 C; 8 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        353 CCCTACCAGCAGCTGGC 369
              ||||| ||||| |||||
Db         17 CCCTAGCAGCAACTGGC 1
```

```
RESULT 4616
AAQ56662/c
ID   AAQ56662 standard; DNA; 20 BP.
XX
AC   AAQ56662;
XX
DT   25-MAR-2003  (revised)
DT   16-AUG-1994  (first entry)
XX
DE   Bacteriophage lambda gt11 forward F1 primer.
XX
KW   Human megakaryocyte differentiation factor; MDF; thrombopoietin;
KW   haematopoietic stimulating factor; thrombocytopaenia; platelet;
KW   bone marrow transplantation; cancer chemotherapy; bacteriophage lambda;
KW   polymerase chain reaction; primer; ss.
XX
OS   Synthetic.
XX
PN   EP583884-A1.
XX
PD   23-FEB-1994.
XX
PF   19-JUL-1993;   93EP-00305654.
XX
PR   17-JUL-1992;   92JP-00212305.
PR   04-MAR-1993;   93JP-00067339.
XX
PA   (SUNR ) SUNTORY LTD.
XX
PI   Tsujimoto M,  Iwasa F,  Tsuruoka N,  Nakazato H,  Miura K,  Ishida N;
PI   Kurihara T,  Yamaichi K,  Yamaguchi N;
XX
DR   WPI; 1994-058782/08.
XX
PT   New megakaryocyte differentiation factor - isolated from human epidermoid
PT   carcinoma cells, used to treat conditions involving a decrease in
PT   platelets.
XX
PS   Example 2; Page 28; 47pp; English.
XX
CC   The cDNA coding for human megakaryocyte differentiation factor (MDF) was
CC   isolated from a library prepared using mRNA derived from human epidermoid
CC   carcinoma A431 cells. The oligonucleotides AAQ56647- AAQ56667 were used
CC   in the isolation and sequence analysis of MDF cDNA by PCR. Identification
CC   and isolation of the 5' portion of MDF cDNA involved amplification of a
CC   HPC-Y11 phage library using the lambda gt11-forward F1 primer (AAQ56662).
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 6 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        803 CTGGTGGGGGCCGTAAT 819
              |||||| ||||| ||||
Db         18 CTGGTGTGGGCCATAAT 2
```

```
RESULT 4617
AAQ64082
ID   AAQ64082 standard; cDNA; 20 BP.
XX
AC   AAQ64082;
XX
DT   14-FEB-1995  (first entry)
XX
DE   NANBHV NS1/NS2 (EN3) primer kk49.
XX
KW   Non-A, non-B hepatitis virus; NANBHV; hepatitis C virus; HCV; core; ENV;
KW   NS1; NS2; NS3; antigen; detection; amplification; primer;
KW   polymerase chain reaction; PCR; ss.
```

```
XX
OS   Synthetic.
XX
PN   JP06141870-A.
XX
PD   24-MAY-1994.
XX
PF   12-MAR-1992;   92JP-00088140.
XX
PR   12-MAR-1992;   92JP-00088140.
XX
PA   (TOKR-) ZH TOKYOTO RINSHO IGAKU SOGO KENKYUSHO.
PA   (SANW ) SANWA KAGAKU KENKYUSHO CO.
PA   (TOFU ) TONEN CORP.
XX
DR   WPI; 1994-205028/25.
XX
PT   DNA coding a Non-A.Non-B hepatitis virus antigen - useful for detecting
PT   HCV within serum.
XX
PS   Disclosure; Page 7; 22pp; Japanese.
XX
CC   Hepatitis C virus #4 and #6 genes were isolated (AAQ64068-69). Both genes
CC   contain the core, ENV, NS1, NS2 and NS3 regions. A core region fragment
CC   is given in AAQ64067
XX
SQ   Sequence 20 BP; 4 A; 12 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        774 ACCCTCTGAACCTCCCC 790
              ||| |||||||||||||
Db          1 ACCACCTGAACCTCCCC 17


RESULT 4618
AAQ45269/c
ID   AAQ45269 standard; DNA; 20 BP.
XX
AC   AAQ45269;
XX
DT   25-MAR-2003  (revised)
DT   28-OCT-1994  (first entry)
XX
DE   Primer to amplify sequence tagged site for human chromosome 15.
XX
KW   Yeast Artificial Chromosome; YAC; polymerase chain reaction; PCR;
KW   sequence tagged site; genetic disorder; diagnosis; abnormality;
KW   Prader-Willi; Angelman; Beckwith-Wiedermann; syndrome; ss.
XX
OS   Synthetic.
XX
PN   WO9406936-A1.
XX
PD   31-MAR-1994.
XX
PF   10-SEP-1993;   93WO-US008501.
XX
PR   11-SEP-1992;   92US-00943639.
XX
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Airhart SD,  Mutirangura A,  Ledbetter DH;
XX
DR   WPI; 1994-118484/14.
XX
PT   Diagnosis of genetic disorders associated with chromosomal abnormalities
PT   and uniparental disomy, e.g. Prader-Willi:Angelman syndrome - using in
PT   situ hybridisation using probes spanning the IR4-3R or GABRB3 regions.
XX
PS   Example 5; Page 34; 91pp; English.
XX
CC   Primers AAQ45269 and AAQ45270 amplify a 100bp sequence tagged site (STS)
CC   from a yeast artificial chromosome, useful as a probe to diagnose Prader-
CC   Willi/Angelman Syndrome. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 9 A; 4 C; 2 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2004 TTCTTCAGAGATCAAGT 2020
              ||||||||||| | ||||
Db         20 TTCTTCAGAGTTAAAGT 4


RESULT 4619
AAQ98982
ID   AAQ98982 standard; cDNA; 20 BP.
XX
AC   AAQ98982;
XX
DT   27-FEB-1996  (first entry)
XX
DE   H1 extra exon reverse transcriptase primer #1.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; RT-PCR;
KW   anti-Mullerian hormone; AMH; receptor; antibody; therapy; H1; 2B10;
KW   tumour; Mullerian inhibiting substance; MIS; ss.
XX
OS   Synthetic.
XX
PN   WO9516709-A2.
XX
PD   22-JUN-1995.
XX
PF   13-DEC-1994;   94WO-US014643.
XX
PR   13-DEC-1993;   93US-00166333.
PR   23-DEC-1993;   93US-00173512.
XX
PA   (BIOJ ) BIOGEN INC.
PA   (INRM ) INSERM INST NAT SANTE & RECH MED.
XX
PI   Cate RL,  Josso N;
XX
DR   WPI; 1995-231521/30.
XX
PT   New DNA encoding anti-Mullerian hormone receptor, related polypeptide(s)
PT   and antibodies - useful in immunoassays screening for ligands, treatment
PT   of cancer cells expressing the receptor etc.
XX
PS   Example; Page 30; 77pp; English.
XX
CC   The sequences shown in AAQ98984-5 are reverse-transcriptase primers.
CC   These two primers amplify regions of the anti-Mullerian hormone (AMH)
CC   receptor isoforms 2B10 and H1. The difference between these two isoforms
CC   is that H1 contains an extra exon. This means that a 347 bp band is
CC   amplified for H1, whereas a 164 bp band is amplified for 2B10. AMH is a
CC   glycoprotein and is part of the transforming growth factor-beta
CC   superfamily. AMH receptors are present in a limited number of tissues and
CC   can therefore be used to design antibody-toxin complexes to target tumour
CC   cells in these tissues. The RT-PCR reaction was carried out on total RNA
CC   isolated from the AMH target tissues of the rabbit reproductive tract.
CC   These tissues were the mesenchyme surrounding the mullerian duct, and the
CC   granulosa cells of ovarian follicles, and the seminiferous tubules in the
CC   testis. H1 and 2B10 were found in these tissues with a slight prevalence
CC   of H1. The AMH-receptor sequences can be used to screen and purify
CC   compounds that bind to them. The antibody designed from the receptor
CC   sequences can be used in immunoassays to detect the levels of AMH-
CC   receptor. The antibody can also be linked to a toxin in order to kill
CC   cells that express the receptor, e.g. cancer cells
XX
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```
SQ   Sequence 20 BP; 3 A; 5 C; 8 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2555 AGGATGCTGGGCTCTGT 2571
              ||||||||||||  || |
Db          3 AGGATGCTGGGCACTCT 19


RESULT 4620
AAT41105/c
ID   AAT41105 standard; DNA; 20 BP.
XX
AC   AAT41105;
XX
DT   03-DEC-1996  (first entry)
XX
DE   Human gene signature HUMGS01145-derived sense primer.
XX
KW   Gene signature; messenger RNA; mRNA; relative abundance; frequency;
KW   human; cloning; mapping; non-biased library; diagnosis; detection;
KW   cell typing; abnormal cell function; primer; PCR; amplification;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9514772-A1.
XX
PD   01-JUN-1995.
XX
PF   11-NOV-1994;   94WO-JP001916.
XX
PR   12-NOV-1993;   93JP-00355504.
XX
PA   (MATS/) MATSUBARA K.
PA   (OKUB/) OKUBO K.
XX
PI   Matsubara K,  Okubo K;
XX
DR   WPI; 1995-206931/27.
XX
PT   Single-stranded DNA for identifying gene signatures - isolated from 3'-
PT   directed human cDNA library that reflects relative abundance of corresp.
PT   mRNA in specific human tissues.
XX
PS   Example 7; Fig 7; 2245pp; Japanese.
XX
CC   Primers T41001-T41382 are derived from novel human gene signature (GS)
CC   sequences which did not match with sequences deposited in Genbank release
CC   76. The GS sequences (T19001-T26837) were obtained from 3'-directed cDNA
CC   libraries prepared from various human tissues; synthesis of cDNA was
CC   initiated from the 3'-end of mRNA by using poly(T) as the sole primer.
CC   Each library is constructed so as to reflect accurately the relative
CC   abundance of different mRNAs in the particular tissue from which it was
CC   derived. The appearance frequency of a given GS in a cDNA library can be
CC   determined (esp. using primers and probes derived from the GS sequences)
CC   as a means of diagnosing abnormal cell function or for recognising
CC   different cell types. The primers T41105-6 amplify clone pm0281 which
CC   comprises the GS HUMGS001145 (T20145), located on chromosome 7
XX
SQ   Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         84 TGACCCCGATTTTGGAT 100
              |||||||| ||||| |
Db         17 TGACCCCGAGTTTGGCT 1


RESULT 4621
AAQ86599
ID   AAQ86599 standard; DNA; 20 BP.
XX
AC   AAQ86599;
XX
DT   25-MAR-2003  (revised)
DT   28-SEP-1995  (first entry)
XX
DE   HEV ORF2.0 PCR 5' primer.
XX
KW   Hepatitis E virus; HEV; ORF2; antigen; vaccine; immunogen; primer; PCR;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9508632-A1.
XX
PD   30-MAR-1995.
XX
PF   23-SEP-1994;   94WO-AU000572.
XX
PR   24-SEP-1993;   93AU-00001423.
PR   15-DEC-1993;   93AU-00002964.
XX
PA   (MACF-) MACFARLANE BURNET CENT MEDICAL.
XX
PI   Anderson DA,  Locarnini SA,  Torresi J,  Li F,  Hui Z;
XX
DR   WPI; 1995-139601/18.
XX
PT   Antigens of hepatitis E virus (HEV) - selectively immuno:reactive to
PT   convalescent and/or acute phase circulating antibodies to HEV.
XX
PS   Example 1; Page 21; 78pp; English.
XX
CC   The primers given in AAQ86594-86603 were used in the RT-PCR amplification
CC   of ORF2 and part of ORF3 of a Chinese isolate of HEV. Amplified fragments
CC   were manipulated into pGEX vectors for production of GST-HEV antigen
CC   fusion proteins in E. coli. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2239 CTTAAGGTACTGAAGCT 2255
              |||||||  ||||||||
Db          2 CTTAAGGCGCTGAAGCT 18


RESULT 4622
AAQ86829
ID   AAQ86829 standard; DNA; 20 BP.
XX
AC   AAQ86829;
XX
DT   13-DEC-1995  (first entry)
XX
DE   Antisense oligonucleotide ISIS 7595 hybridises to MRP gene.
XX
KW   Untranslated region; coding sequence; chemotherapeutic drug treatment;
KW   antisense; modulation; multidrug resistance protein; drug; cancer; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .20
FT                   /*tag=  a
FT                   /note= "contains phosphorothioate internucleotide
FT                   linkages"
XX
```

```
PN   WO9510938-A1.
XX
PD   27-APR-1995.
XX
PF   23-SEP-1994;   94WO-US010827.
XX
PR   18-OCT-1993;   93US-00136811.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baracchini E,  Bennett CF;
XX
DR   WPI; 1995-169974/22.
XX
PT   New oligo:nucleotide cpds., esp. for cancer therapy - which are
PT   specifically hybridisable with nucleic acid encoding multi:drug
PT   resistance-associated protein.
XX
PS   Claim 7; Page 10; 36pp; English.
XX
CC   Oligonucleotides AAQ86826-50 are antisense oligonucleotides used to
CC   modulate the expression of the multidrug resistance protein (MRP) by
CC   hybridising with the multidrug resistance (MDR) gene or its RNA message.
CC   This sequence is targeted to the 5' untranslated region (5'UTR) of the
CC   MDR gene. The oligonucleotides can be used to improve the efficacy of
CC   chemotherapeutic drug treatment of a disease such as cancer or to prevent
CC   multidrug resistance developing during drug treatment of a disease
XX
SQ   Sequence 20 BP; 0 A; 7 C; 12 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              | |||| ||||||||||
Db          4 GTGGCGCGGGCGGCGGC 20


RESULT 4623
AAT39924/c
ID   AAT39924 standard; cDNA; 20 BP.
XX
AC   AAT39924;
XX
DT   23-JAN-1997  (first entry)
XX
DE   Maize acetyl CoA carboxylase 3' PCR primer 28sst-110F.
XX
KW   Acetyl CoA carboxylase; ACCase; herbicide tolerance; cyclohexanedione;
KW   aryloxyphenoxypropionic acid; vegetable oil; oilseed; maize; corn;
KW   polymerase chain reaction; PCR; primer; Zea mays; ss.
XX
OS   Synthetic.
XX
PN   WO9631609-A2.
XX
PD   10-OCT-1996.
XX
PF   04-APR-1996;   96WO-US004625.
XX
PR   05-APR-1995;   95US-00417089.
XX
PA   (MINU ) UNIV MINNESOTA.
XX
PI   Gengenbach BG,  Somers DA,  Wyse DL,  Gronwald JW,  Egli MA,  Lutz SM;
XX
DR   WPI; 1996-465030/46.
XX
PT   DNA encoding maize acetyl coenzyme A carboxylase gene - used for prodn.
PT   of plants with herbicide tolerance or altered oil content.
XX
PS   Example 7; Page 60; 131pp; English.
XX
CC   PCR primers 28sst-110F (AAT39924) and 28sst-2T3+ (AAT39925) cover a
CC   sequence coding for a conserved amino acid sequence found in all acetyl
CC   CoA carboxylases (ACCase). They are used as 3' primers with PCR primers
CC   specific for the 5' untranslated region of ACCase Type A1 genomic clones
CC   (see also AAT39906-07). ACCase Type A2 genomic clones (see also AAT39908-
CC   13) are weakly amplified by these primer combinations, and A2 amplified
CC   products differ in sequence from A1 amplified products. Sequence
CC   differences in the 5' region should provide a means of distinguishing
CC   between expression of A1 and A2 ACCase genes
XX
SQ   Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1573 CCTTCTCCACCGCACAG 1589
              ||||||| | |||||||
Db         18 CCTTCTCAAACGCACAG 2


RESULT 4624
AAT44306/c
ID   AAT44306 standard; DNA; 20 BP.
XX
AC   AAT44306;
XX
DT   03-APR-1997  (first entry)
XX
DE   Primer 5 for amplifying Lg-FLO1 coding sequence.
XX
KW   Lg-FLO1; brewers yeast; flocculability; brewing; alcoholic drink; beer;
KW   wine; brandy; sake; shochu; whiskey; fuel alcohol; soy sauce; miso;
KW   flocculin; ss.
XX
OS   Synthetic.
XX
PN   WO9623877-A1.
XX
PD   08-AUG-1996.
XX
PF   31-JAN-1996;   96WO-JP000183.
XX
PR   01-FEB-1995;   95JP-00015449.
PR   02-MAY-1995;   95JP-00108688.
XX
PA   (KIRI ) KIRIN BEER KK.
XX
PI   Kobayashi O,  Hayashi N,  Sone H;
XX
DR   WPI; 1996-371427/37.
XX
PT   DNA encoding Protein Lg-FL01 which imparts brewer's yeast type
PT   flocculability to yeasts - useful in brewing of alcoholic drinks.
XX
PS   Example 1; Page 16; 51pp; English.
XX
CC   The sequences given in AAT44306-16 are primers which were used to amplify
CC   the Lg-FLO1 coding sequence. Lg-FLO1 imparts a brewers yeast type
CC   flocculability to yeasts. Yeasts that are transformed with Lg-FLO1 have
CC   enhanced or new flocculability. Conversely, introduction of the DNA in a
CC   disabled form, or suppression of its expression, converts the yeast to a
CC   strain in which flocculability has been reduced or eliminated. Production
CC   of yeasts with controlled flocculability properties are useful in the
CC   brewing of alcoholic drinks such as beer, wine, brandy, sake, shochu or
CC   whiskey, or for the production of fuel alcohol and for the production of
CC   other fermentation products such as soy sauce or miso
XX
SQ   Sequence 20 BP; 7 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
```

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        160 GGACGCCATGTTGTGGA 176
              |||| |||||||||| |
Db         19 GGACACCATGTTGTGTA 3


RESULT 4625
AAV06314/c
ID   AAV06314 standard; DNA; 20 BP.
XX
AC   AAV06314;
XX
DT   06-MAY-1998  (first entry)
XX
DE   Mouse gut RNA amplifying RT-PCR primer MR-6.
XX
KW   Collagen; gut; recombinant; post-translational enzyme; mouse;
KW   procollagen; RT-PCR primer; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   WO9738710-A1.
XX
PD   23-OCT-1997.
XX
PF   11-APR-1997;   97WO-US007300.
XX
PR   12-APR-1996;   96US-00631336.
XX
PA   (FIBR-) FIBROGEN INC.
PA   (FIFI-) ACAD FINLAND.
XX
PI   Kivirikki KI,  Pihlajaniemi T;
XX
DR   WPI; 1997-526203/48.
XX
PT   Recombinant production of (pro)collagen having correct folding - using
PT   vectors encoding collagen sub:unit and collagen post-translational enzyme
PT   respectively.
XX
PS   Example 10; Page 53; 90pp; English.
XX
CC   This primer is used in the RT-PCR amplification with the mouse gut RNA as
CC   a template. This is used to generate a probe G2 for murine type XIII
CC   collagen. This is used in a novel method for producing a (pro)collagen
CC   polypeptide. The (pro)collagen polypeptide is selected from collagen
CC   types IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, XIV, XV, XVI, XVII,
CC   XVIII, and XIX. The method comprises culturing a host cell, where the
CC   host cell has been infected, transfected or transformed with a first
CC   expression vector comprising a polynucleotide molecule having a nucleic
CC   acid sequence which encodes a (pro)collagen subunit and a second
CC   expression vector comprising a polynucleotide molecule having a nucleic
CC   acid sequence which encodes at least one (pro)collagen post-translational
CC   enzyme or enzyme subunit. The (pro)collagen polypeptide is then purified
CC   from the cultured cell. The methods can be used for the production of
CC   collagens such as human collagens which can be used in therapeutic
CC   applications. The method provides for the synthesis of correctly folded
CC   proteins so that they exhibit the normal triple-helical conformation
CC   characteristic of procollagens and collagens. Purification of the
CC   collagens is greatly facilitated
XX
SQ   Sequence 20 BP; 1 A; 7 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1287 GGACCAGCAGGCTCGCC 1303
              |||| ||||||||| ||
Db         19 GGACAAGCAGGCTCACC 3


RESULT 4626
AAT88934/c
ID   AAT88934 standard; DNA; 20 BP.
XX
AC   AAT88934;
XX
DT   22-JAN-1998  (first entry)
XX
DE   Detector probe 1 for the gag gene of HIV.
XX
KW   HIV; gag; HLA-DQ-alpha; human acute myelogenous leukaemia; AML; PCR;
KW   primer; thermophilic strand displacement amplification; tSDA;
KW   in situ amplification; probe; screening; ss.
XX
OS   Synthetic.
OS   Human immunodeficiency virus.
XX
PN   WO9711196-A2.
XX
PD   27-MAR-1997.
XX
PF   12-SEP-1996;   96WO-US014648.
XX
PR   21-SEP-1995;   95US-00531747.
PR   21-SEP-1995;   95US-00531749.
XX
PA   (BECT ) BECTON DICKINSON CO.
XX
PI   Lohman KL,  Ostrerova NV,  Van Cleve M,  Reid RA;
XX
DR   WPI; 1997-202902/18.
XX
PT   Detection of nucleic acids in cells - by in situ amplification of target
PT   sequences by thermophilic strand displacement amplification.
XX
PS   Claim 14; Page 16; 37pp; English.
XX
CC   This 32P labelled primer is an example of a detector probe for the
CC   amplified products of the gag gene of HIV. It is used in a modified
CC   version of thermophilic strand displacement amplification (tSDA) to
CC   amplify double stranded DNA in situ. Amplification primers (see AAT88932-
CC   3) are hybridised to both strands of the gene, and are extended. Both
CC   primers have a restriction endonuclease (RE) recognition site, and the
CC   products will also contain these sites. The products are displaced from
CC   the target sequence, by extension of the bumper primers (see AAT88941-
CC   42), which anneal upstream of the amplification primers, and made double
CC   stranded by synthesising complementary strands. Making the products
CC   double stranded causes "nicks" to be created (via the RE recognition
CC   sites). Further extension occurs from the nicks, thereby displacing a
CC   copy of the target sequence from the double stranded amplification primer
CC   extension products. The nicking, extending and displacing steps are
CC   repeated, and the target sequence amplified in situ. The method can be
CC   used for the amplification of DNA in situ in cells in suspension, on
CC   slides or in tissues, with speed, sensitivity and specificity. In situ
CC   tSDA also remains compatible with immunochemical techniques in spite of
CC   the increased reaction temparature so both amplification of DNA and
CC   immunological staining can be performed on the same specimen
XX
SQ   Sequence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              |||||||||||| | ||
Db         19 ATTATCAGAAGGAGCCA 3


RESULT 4627
AAT47265
ID   AAT47265 standard; RNA; 20 BP.
```

```
XX
AC   AAT47265;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment #2 of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= 7-methylguanosine
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= triphosphorylated
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 12; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 20 BP; 3 A; 1 C; 2 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   11.8%;  Pred. No. 4.3e+03;
  Matches    2;  Conservative   13;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTAACTTT 2192
              ::::: ::::::|| :::
Db          3 UUUUUAUUUUUAAUUUU 19


RESULT 4628
AAV20640
ID   AAV20640 standard; DNA; 20 BP.
XX
AC   AAV20640;
XX
DT   07-JUL-1998  (first entry)
XX
DE   Primer Sf MI -25+ for Sf9 alpha-mannosidase I cDNA.
XX
KW   Sf9 cell; alpha-mannosidase I; PCR primer; ss.
XX
OS   Synthetic.
OS   Lepidoptera.
XX
PN   WO9806835-A2.
XX
PD   19-FEB-1998.
XX
PF   15-AUG-1997;   97WO-US014428.
XX
PR   16-AUG-1996;   96US-0024078P.
XX
PA   (TEXA ) UNIV TEXAS A & M SYSTEM.
XX
PI   Jarvis DL;
XX
DR   WPI; 1998-159527/14.
XX
PT   Baculovirus expression vector comprising oligosaccharide processing
PT   enzyme - useful to modify insect cell glycosylation pathways, in e.g.
PT   insecticidal preparations.
XX
PS   Example 16; Page 139; 234pp; English.
XX
CC   The present sequence is a primer for the cDNA encoding alpha-mannosidase
CC   I, which was isolated from lepidopteran Sf9 cells
XX
SQ   Sequence 20 BP; 2 A; 2 C; 7 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2346 GTGGAGGTTCTGTATTT 2362
              ||| |||||||| |||
Db          1 GTGTAGGTTCTGTGTTT 17


RESULT 4629
AAV07136
ID   AAV07136 standard; cDNA; 20 BP.
XX
AC   AAV07136;
XX
DT   09-SEP-1998  (first entry)
XX
DE   Nucleotide sequence of a PCR primer.
XX
KW   Ribonucleotide protein; hnRNPA2; human epithelial peptide; marker;
KW   cancer; probe; hybridisation; primer; amplification; lung; liver; kidney;
KW   breast; prostate; melanoma; myeloma; antibody; PCR; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9814469-A2.
XX
PD   09-APR-1998.
XX
PF   02-OCT-1997;   97WO-US017714.
XX
PR   02-OCT-1996;   96US-00725027.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PA   (UYJO ) UNIV JOHNS HOPKINS.
XX
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```
PI   Mulshine JL,  Tockman MS;
XX
DR   WPI; 1998-240016/21.
XX
PT   New isolated epithelial protein as early marker of cancer - useful in
PT   computer-assisted methods of diagnosis based on discriminant analysis of
PT   optical images of cells.
XX
PS   Disclosure; Page 127; 159pp; English.
XX
CC   This is the nucleotide sequence of a PCR primer used for amplification in
CC   the method of the invention. Probes and primers that hybridise to or
CC   amplify these peptides are used to diagnose precancerous states, e.g. of
CC   lung, liver, kidney, breast, prostate, head or neck, melanoma or myeloma,
CC   or to determine susceptibility to these conditions and for monitoring
CC   treatment. Precancer is also indicated by detecting post-translational
CC   modification of the epithelial peptide which is a marker of epithelial
CC   cell transformation. Antibodies are potentially useful for diagnosis and
CC   treatment of cancer
XX
SQ   Sequence 20 BP; 9 A; 4 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1199 ATGGCAGCTAGGAAGAA 1215
              ||||||  |||||||||
Db          4 ATGGCAAATAGGAAGAA 20


RESULT 4630
AAV16787
ID   AAV16787 standard; DNA; 20 BP.
XX
AC   AAV16787;
XX
DT   06-JUL-1998  (first entry)
XX
DE   Primer Sf MI -25+ for Sf9 alpha-mannosidase I cDNA.
XX
KW   Sf9 cell; alpha-mannosidase I; PCR primer; ss.
XX
OS   Synthetic.
OS   Lepidoptera.
XX
PN   WO9806855-A1.
XX
PD   19-FEB-1998.
XX
PF   15-AUG-1997;   97WO-US014504.
XX
PR   16-AUG-1996;   96US-0024078P.
XX
PA   (TEXA ) UNIV TEXAS A & M SYSTEM.
PA   (SWBI-) SOUTHWEST FOUND BIOMEDICAL RES.
XX
PI   Jarvis DL,  Lanford R;
XX
DR   WPI; 1998-159546/14.
XX
PT   New baculovirus expression system - expresses galactosyl:transferase and
PT   desired protein, used particularly for treating hepatocyte(s).
XX
PS   Example 16; Page 154; 247pp; English.
XX
CC   The present sequence is a primer for the cDNA encoding alpha-mannosidase
CC   I, which was isolated from lepidopteran Sf9 cells
XX
SQ   Sequence 20 BP; 2 A; 2 C; 7 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2346 GTGGAGGTTCTGTATTT 2362
              ||| |||||||||  |||
Db          1 GTGTAGGTTCTGTGTTT 17


RESULT 4631
AAV53579
ID   AAV53579 standard; DNA; 20 BP.
XX
AC   AAV53579;
XX
DT   25-MAR-2003  (revised)
DT   20-NOV-1998  (first entry)
XX
DE   Nucleotide sequence of a phosphorothioate oligonucleotide 4.
XX
KW   Phosphorothioate oligonucleotide; antisense; inhibition; cancer;
KW   multidrug resistance; multiresistant protein; MRP; chemotherapy; human;
KW   leukotriene; inflammatory condition; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /note= "phosphorothioate backbone"
XX
PN   US5801154-A.
XX
PD   01-SEP-1998.
XX
PF   08-APR-1997;   97US-00835770.
XX
PR   18-OCT-1993;   93US-00136811.
PR   16-APR-1996;   96US-00628731.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Dean NM,  Baracchini E;
XX
DR   WPI; 1998-494825/42.
XX
PT   Anti:sense oligo:nucleotide(s) inhibiting multi:drug resistance protein
PT   expression - useful for increasing the efficacy of drugs that certain
PT   conditions have become resistant to e.g. small cell lung cancer.
XX
PS   Claim 18; Col 10; 29pp; English.
XX
CC   This is the nucleotide sequence of the phosphorothioate oligonucleotide
CC   used in the method of the invention, involving the used of antisense
CC   oligonucleotides to inhibit multidrug resistance. The oligonucleotides
CC   are used for the antisense inhibition of multiresistant proteins (MRPs).
CC   These proteins are commonly found in some cancers which initially respond
CC   to chemotherapy, but overexpression of the protein leads to chemotherapy
CC   drug resistance. They are administered with the drugs to attempt to
CC   enhance efficacy of the drugs. MRPs are also expressed in other ailments,
CC   and as such, the oligonucleotides can be used to treat these conditions
CC   as well. The sequences are based on the human MRP and are used to treat
CC   conditions such as cancers, especially small-cell lung cancer, prevention
CC   of development of multidrug resistance during chemotherapy, and treatment
CC   of conditions characterised by leukotriene production, especially
CC   inflammatory conditions. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 20 BP; 0 A; 7 C; 12 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
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                  | ||||  ||||||||||
Db          4 GTGGCGCGGGCGGCGGC 20


RESULT 4632
AAV19518
ID   AAV19518 standard; DNA; 20 BP.
XX
AC   AAV19518;
XX
DT   16-JUL-1998  (first entry)
XX
DE   Retroviral DNA base sequences amplifying primer MZ8.
XX
KW   Retrovirus; AIDS; serum; HIV; human immunodeficiency virus;
KW   antigen measurement; diagnosis; nested PCR primer; ss.
XX
OS   Synthetic.
OS   Human immunodeficiency virus 2.
XX
PN   JP10094394-A.
XX
PD   14-APR-1998.
XX
PF   20-SEP-1996;   96JP-00271467.
XX
PR   20-SEP-1996;   96JP-00271467.
XX
PA   (EIKE ) EIKEN KAGAKU KK.
XX
DR   WPI; 1998-279230/25.
XX
PT   Retrovirus reacting with AIDS patient serum - useful for the exact
PT   diagnosis of an unknown AIDS causing virus.
XX
PS   Example; Page 7; 16pp; Japanese.
XX
CC   This primer is used in the nested PCR amplification of the DNA base
CC   sequences isolated from a retrovirus particle collected from the blood of
CC   an AIDS patient. The specification provides DNA base sequences encoding a
CC   retroviral protein which reacts with serum of AIDS patients. It provides
CC   an antigen for the detection of an antibody against retrovirus which
CC   consists of a peptide derived from these base sequences. The invention
CC   provides a method for antigen measurement in which the above antigen is
CC   contacted with a sample blood to determine immunoglobulin reacting with
CC   the antigen and a method for screening the infection of retrovirus other
CC   than HIV-1, HIV-2 subtype A which can be collected from an AIDS patient
CC   blood by the above antibody measurement. The method can diagnose exactly
CC   an unknown AIDS-causing virus
XX
SQ   Sequence 20 BP; 7 A; 5 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
                ||||||||||||  | ||
Db          3 ATTATCAGAAGGAGCCA 19


RESULT 4633
AAV68581/c
ID   AAV68581 standard; DNA; 20 BP.
XX
AC   AAV68581;
XX
DT   16-FEB-1999  (first entry)
XX
DE   Nucleotide sequence of a detection primer.
XX
KW   Detection primer; hybridisation; Strand Displacement Amplification; SDA;
KW   RNA target; RNA-related disease; viraemas; upregulation; cancer; ss.
XX
OS   Synthetic.
XX
PN   EP878553-A2.
XX
PD   18-NOV-1998.
XX
PF   05-MAY-1998;   98EP-00108154.
XX
PR   08-MAY-1997;   97US-00854041.
XX
PA   (BECT ) BECTON DICKINSON & CO.
XX
PI   Pearson RE,  Dickson JA,  Mehrpouyan M;
XX
DR   WPI; 1998-585754/50.
XX
PT   Amplification of RNA targets - using reverse transcription Strand
PT   Displacement Amplification.
XX
PS   Example 1; Page 8; 14pp; English.
XX
CC   This is a detection primer (probe) used in the method of the invention to
CC   amplify a target sequence involving Strand Displacement Amplification
CC   (SDA). Amplification of RNA targets by SDA is useful in diagnostics, and
CC   is especially useful for monitoring RNA-related diseases including
CC   viraemas and upregulation of cancer genes
XX
SQ   Sequence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
                ||||||||||||  | ||
Db          19 ATTATCAGAAGGAGCCA 3


RESULT 4634
AAV28931/c
ID   AAV28931 standard; DNA; 20 BP.
XX
AC   AAV28931;
XX
DT   05-AUG-1998  (first entry)
XX
DE   Bovine Nramp1 cloning PCR primer 1R.
XX
KW   Bovine; Nramp1; artiodactyla; ungulate; intracellular parasite; bison;
KW   susceptibility; resistance; tuberculosis; ruminant; PCR primer; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   WO9812353-A2.
XX
PD   26-MAR-1998.
XX
PF   19-SEP-1997;   97WO-US016694.
XX
PR   20-SEP-1996;   96US-0031443P.
PR   30-JUL-1997;   97US-00903139.
XX
PA   (TEXA ) UNIV TEXAS A & M SYSTEM.
PA   (UYMC-) UNIV MCGILL.
XX
PI   Templeton JW,  Feng J,  Adams LG,  Schurr E,  Gros P,  Davis DS;
PI   Smith R;
XX
DR   WPI; 1998-217285/19.
XX
PT   Screening animals for susceptibility to intracellular parasites - by
```

PT analysing the genetic material for sequences associated with bovine
PT NrampI, for determining resistance or susceptibility to infection.
XX
PS Example 1; Fig 1B; 76pp; English.
XX
CC A method has been developed for screening animals for resistance or
CC susceptibility to disease. The method comprises analysing an animal's
CC genome for specific genetic sequences associated with bovine NrampI,
CC where the genetic sequences are associated with susceptibility or
CC resistance of an animal to disease caused by intracellular parasites. The
CC present sequence represents a PCR primer used in an example of the
CC present invention for cloning bovine Nramp1. The present invention also
CC describes a method for screening animals for susceptibility to disease,
CC and a method for predicting the likelihood of an animal being resistant
CC to disease caused by intracellular parasites. The methods can be used for
CC identifying animals that are resistant or susceptible to diseases such as
CC artiodactyla brucellosis, ungulate brucellosis, tuberculosis,
CC paratuberculosis or salmonellosis. The animals may be e.g. artiodactyla,
CC ungulate or ruminant (specifically bovine or bison). Susceptible animals
CC can be segregated, prophylactically or therapeutically treated or
CC sacrificed. Resistant animals can be safely handled, used to produce food
CC stuffs, and/or bred to produce disease resistant animals
XX
SQ Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2650 ACCCTAAGGTGAGTGTG 2666
||||||||||||| ||
Db 18 ACCCTAAGGTGAGCTTG 2

RESULT 4635
AAX36926
ID AAX36926 standard; DNA; 20 BP.
XX
AC AAX36926;
XX
DT 02-JUL-1999 (first entry)
XX
DE S. cereale microsatellite marker PCR primer 25.
XX
KW Microsatellite; marker; PCR primer; rye; plant; Triticeae; Poeae;
KW simple sequence repeat; SSR; sequence tag site; STS; genetic analysis;
KW DNA fingerprinting; variety identification; self fertilization;
KW detection; cross fertilization; cytological line; gene mapping;
KW monogenic trait; polygenic trait; ss.
XX
OS Synthetic.
OS Secale cereale.
XX
PN DE19835109-A1.
XX
PD 15-APR-1999.
XX
PF 04-AUG-1998; 98DE-01035109.
XX
PR 02-OCT-1997; 97DE-01043671.
XX
PA (GVSE-) GVS GES ERWERB & VERWERTUNG LANDWIRTSCHA.
XX
PI Wricke G, Saal B;
XX
DR WPI; 1999-245522/21.
XX
PT Microsatellite markers derived from the genome of rye, useful for genetic
PT mapping as markers of monogenic or polygenic traits.
XX
PS Claim 6; Page 15; 28pp; German.
XX
CC This invention describes Secale cereale microsatellite markers based on
CC hypervariable genomic segments of Secale cereale and plants of the tribes
CC Triticeae and Poeae. The microsatellite markers comprise a simple
CC sequence repeat (SSR) marker as sequence tag site (STS), defined by two
CC specific S. cereale defined primers, of mean length 18-26 bases and
CC flanking the microsatellite sequence (MSS). Such markers are useful for
CC genetic analysis of rye, triticale and other species of the tribes
CC Triticeae and Poeae, e.g. for DNA fingerprinting; identification of
CC varieties; detecting self or cross fertilization; studying similarity and
CC relatedness; characterization of cytological lines, or generally any sort
CC of gene mapping. Particularly, they are useful for genetic mapping and
CC marking of mono- or poly-genic traits, selection and evaluation of
CC varietal purity or checking culture stages (particularly in hybrid
CC culture methods), purity of propagative materials, success of self-
CC fertilization and required ratio of components in populations and
CC hybrids. AAX36902-X36965 represent PCR primers used in the method of the
CC invention
XX
SQ Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 329 CAGCCGCCACCCTACTT 345
||||||||||| || ||
Db 3 CAGCCGCCACCTTAATT 19

RESULT 4636
AAV74259
ID AAV74259 standard; DNA; 20 BP.
XX
AC AAV74259;
XX
DT 20-MAR-2003 (revised)
DT 15-MAR-1999 (first entry)
XX
DE CpG-N motif oligonucleotide #6.
XX
KW CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation;
KW viral antigen; bacterial antigen; parasite; therapeutic; growth factor;
KW toxin; tumour suppressor; cytokine; apoptotic protein; interferon;
KW hormone; clotting factor; ligand; receptor; ss.
XX
OS Synthetic.
XX
PN WO9852581-A1.
XX
PD 26-NOV-1998.
XX
PF 20-MAY-1998; 98WO-US010408.
XX
PR 20-MAY-1997; 97US-0047209P.
PR 20-MAY-1997; 97US-0047233P.
XX
PA (OTTA-) OTTAWA CIVIC HOSPITAL LOEB RES INST.
PA (IOWA) UNIV IOWA RES FOUND.
PA (QIAG-) QIAGEN GMBH.
XX
PI Davis HL, Krieg AM, Schorr J, Wu T;
XX
DR WPI; 1999-059712/05.
XX
PT Use of neutralising CpG and stimulating CpG motifs in DNA vectors - for
PT enhancing the immunostimulatory effect of an antigen or enhancing the
PT expression of a therapeutic polypeptide.
XX
PS Example 5; Page 73; 109pp; English.
XX
CC AAV74254-V74261 are oligonucleotides used to describe a method for
CC enhancing the immunostimulatory effect of an antigen encoded by nucleic
CC acid contained in a nucleic acid construct. The method involves
CC determining the CpG-N and CpG-S motifs present in the construct, removing

```
CC   neutralising CpG (CpG-N) motifs and optionally inserting stimulatory CpG
CC   (CpG-S) motifs in the construct, thereby producing a nucleic acid
CC   construct having enhanced immunostimulatory efficacy. The method can be
CC   used for immunisation against viral antigens, e.g. from hepatitis B virus
CC   (HBV), bacterial antigens or an antigen derived from a parasite. They can
CC   also be used for expression of a therapeutic polypeptide, e.g. growth
CC   factors, toxins, tumour suppressors, cytokines, apoptotic proteins,
CC   interferons, hormones, clotting factors, ligands and receptors. (Updated
CC   on 20-MAR-2003 to correct PA field.)
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db          2 CGGCCGGCCGGCCGGCC 18


RESULT 4637
AAV74259/c
ID   AAV74259 standard; DNA; 20 BP.
XX
AC   AAV74259;
XX
DT   20-MAR-2003  (revised)
DT   15-MAR-1999  (first entry)
XX
DE   CpG-N motif oligonucleotide #6.
XX
KW   CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation;
KW   viral antigen; bacterial antigen; parasite; therapeutic; growth factor;
KW   toxin; tumour suppressor; cytokine; apoptotic protein; interferon;
KW   hormone; clotting factor; ligand; receptor; ss.
XX
OS   Synthetic.
XX
PN   WO9852581-A1.
XX
PD   26-NOV-1998.
XX
PF   20-MAY-1998;   98WO-US010408.
XX
PR   20-MAY-1997;   97US-0047209P.
PR   20-MAY-1997;   97US-0047233P.
XX
PA   (OTTA-) OTTAWA CIVIC HOSPITAL LOEB RES INST.
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (QIAG-) QIAGEN GMBH.
XX
PI   Davis HL,  Krieg AM,  Schorr J,  Wu T;
XX
DR   WPI; 1999-059712/05.
XX
PT   Use of neutralising CpG and stimulating CpG motifs in DNA vectors - for
PT   enhancing the immunostimulatory effect of an antigen or enhancing the
PT   expression of a therapeutic polypeptide.
XX
PS   Example 5; Page 73; 109pp; English.
XX
CC   AAV74254-V74261 are oligonucleotides used to describe a method for
CC   enhancing the immunostimulatory effect of an antigen encoded by nucleic
CC   acid contained in a nucleic acid construct. The method involves
CC   determining the CpG-N and CpG-S motifs present in the construct, removing
CC   neutralising CpG (CpG-N) motifs and optionally inserting stimulatory CpG
CC   (CpG-S) motifs in the construct, thereby producing a nucleic acid
CC   construct having enhanced immunostimulatory efficacy. The method can be
CC   used for immunisation against viral antigens, e.g. from hepatitis B virus
CC   (HBV), bacterial antigens or an antigen derived from a parasite. They can
CC   also be used for expression of a therapeutic polypeptide, e.g. growth
CC   factors, toxins, tumour suppressors, cytokines, apoptotic proteins,
CC   interferons, hormones, clotting factors, ligands and receptors. (Updated
CC   on 20-MAR-2003 to correct PA field.)
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4638
AAZ02544/c
ID   AAZ02544 standard; DNA; 20 BP.
XX
AC   AAZ02544;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1533; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 7 A; 10 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        116 TGGGGGGATCCTGGATT 132
              |||||||||  ||||||
```

```
Db         20 TGGGGGGATTATGGATT 4

RESULT 4639
AAZ02339/c
ID   AAZ02339 standard; DNA; 20 BP.
XX
AC   AAZ02339;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1516; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 1 A; 9 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        898 GGCTGAAGTACAGAGGC 914
              ||  ||||||||||||||
Db         18 GGGAGAAGTACAGAGGC 2


RESULT 4640
AAZ03397
ID   AAZ03397 standard; DNA; 20 BP.
XX
AC   AAZ03397;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1603; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 4 A; 7 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1398 CCCTGCAGAACTACATC 1414
              ||  ||||||  |||||||
Db          3 CCTTGCAGATCTACATC 19


RESULT 4641
AAZ02828
ID   AAZ02828 standard; DNA; 20 BP.
XX
AC   AAZ02828;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
```

```
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1556; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1428 TTGTCATAGACAAATCC 1444
              | ||||||||||||  ||
Db          2 TCGTCATAGACAAACCC 18


RESULT 4642
AAX26623
ID   AAX26623 standard; DNA; 20 BP.
XX
AC   AAX26623;
XX
DT   15-JUN-1999  (first entry)
XX
DE   PCR primer for amplification of human breast tumour cell line DNA.
XX
KW   Detection; basepair mismatch cleavage product; mutation; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9913108-A1.
XX
PD   18-MAR-1999.
XX
PF   10-SEP-1998;   98WO-US018776.
XX
PR   10-SEP-1997;   97US-0058419P.
XX
PA   (UYMA-) UNIV MARYLAND BALTIMORE.
PA   (HSUI/) HSU I.
PA   (SHIH/) SHIH J W.
PA   (HIGH/) HIGHSMITH W E.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hsu I,  Shih JW,  Highsmith WE;
XX
DR   WPI; 1999-243734/20.
XX
PT   Detection of DNA and RNA mismatch cleavage products.
XX
PS   Example 1; Page 12; 42pp; English.
XX
CC   The specification describes methods for detection of DNA and RNA basepair
CC   mismatch cleavage products, which indicates the presence and sequence of
CC   target DNA and RNA. Detection of the target is enhanced by amplification
CC   through recycling targets by maintaining an assay temperature between the
CC   melting point of the target/probe duplex and that of the target/product
CC   complex, in the presence of an amplifier. The methods are used to detect
CC   and quantify specific DNA and RNA targets, e.g. in genetic diseases or
CC   infectious agents. They can also be used to detect mutations. The methods
CC   of the invention recycle the targets to dramatically increase the
CC   sensitivity of the mismatch repair assay, and allows for detection of a
CC   million or fewer target DNA or RNA molecules. PCR primers AAX26623-24
CC   were used to exemplify the method of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 1 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2623 AACTTTGTCTCGTTCCT 2639
              |||| ||||| |||||
Db          4 AACTCTGTCTCCTTCCT 20


RESULT 4643
AAZ23851
ID   AAZ23851 standard; DNA; 20 BP.
XX
AC   AAZ23851;
XX
DT   21-JAN-2000  (first entry)
XX
DE   Rye mircrosatellite marker 13 PCR primer 1.
XX
KW   Microsatellite marker; rye; hypervariable genomic region; Poeae;
KW   Triticeae; breeding program; DNA fingerprinting; variety; detection;
KW   self pollination; cross pollination; cytoplasmic line; genetic mapping;
KW   polymorphism; PCR primer; ss.
XX
OS   Synthetic.
OS   Secale cereale.
XX
PN   DE19811506-A1.
XX
PD   21-OCT-1999.
XX
PF   17-MAR-1998;   98DE-01011506.
XX
PR   17-MAR-1998;   98DE-01011506.
XX
PA   (GVSE-) GVS GES ERWERB & VERW LANDWIRTSCHAFTLICH.
XX
DR   WPI; 1999-591715/51.
XX
PT   New microsatellite markers for rye and closely related grasses, used for
PT   genetic analysis and in breeding.
XX
PS   Claim 6; Page 27; 28pp; German.
XX
CC   This invention describes novel microsatellite markers (MSM), based on the
CC   hypervariable genomic regions of rye (Secale cereale) and of plants from
CC   the tribes Triticeae and Poeae. MSM, which are new genetic markers for
CC   rye and closely related species, are used for genetic analysis and in
CC   breeding programs. Typical applications are in DNA fingerprinting;
CC   identification of varieties; detection of self and cross pollination;
CC   characterization of cytoplasmic lines, and genetic mapping (of mono- or
CC   poly-genic traits). MSM show a higher degree of polymorphism than known
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CC   markers (both within and between different rye varieties and lines); can
CC   be detected by polymerase chain reaction, so that even very small samples
CC   may be analyzed, and generate many alleles per marker locus. AAZ23827-
CC   Z23886 represent the microsatellite marker PCR primers described in the
CC   method of the invention
XX
SQ   Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        329 CAGCCGCCACCCTACTT 345
              ||||||||||| || ||
Db          3 CAGCCGCCACCTTAATT 19


RESULT 4644
AAX93392/c
ID   AAX93392 standard; DNA; 20 BP.
XX
AC   AAX93392;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1588; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 7 A; 3 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1590 ACTGGGAACCCCTCCTG 1606
              |||| |||||||||  ||
Db         17 ACTGCGAACCCCTCTTG 1


RESULT 4645
AAX95000
ID   AAX95000 standard; DNA; 20 BP.
XX
AC   AAX95000;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1713; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 5 A; 4 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1326 AGAACTGCTTGTCTCAT 1342
              ||||||||||||  |||
Db          3 AGAACTGCTTGTGCCAT 19


RESULT 4646
AAX81592
ID   AAX81592 standard; DNA; 20 BP.
XX
AC   AAX81592;
XX
DT   26-AUG-1999  (first entry)
XX
DE   PCR primer used to amplify erythrovirus V9 nucleotide sequences.
XX
KW   Erythrovirus V9; differential diagnosis; parvovirus; infection;
```

```
KW   erythrovirus screening; typing; immunoassay; PCR primer; ss.
XX
OS   Synthetic.
OS   Erythrovirus.
XX
PN   FR2771751-A1.
XX
PD   04-JUN-1999.
XX
PF   03-DEC-1997;   97FR-00015197.
XX
PR   03-DEC-1997;   97FR-00015197.
XX
PA   (ASSI-) ASSISTANCE PUBLIQUE HOPITAUX PARIS.
XX
PI   Nguyen QT,  Garbarg CA,  Auguste V;
XX
DR   WPI; 1999-349543/30.
XX
PT   Erythrovirus V9 and its nucleic acid sequences - can be used in the
PT   diagnosis of its infections.
XX
PS   Claim 3; Page 23; 80pp; French.
XX
CC   AAX81588-X81630 represent PCR primers used to amplify erythrovirus V9
CC   polynucleotide sequences. Probes and primers derived from erythrovirus V9
CC   polynucleotide sequences (AAX81580) can be used for differential
CC   diagnosis of erythrovirus (parvovirus) infections by a combination of
CC   amplification and hybridisation assay. The probes can also be used to
CC   assess susceptibility to erythrovirus infection and for erythrovirus
CC   screening and typing. The antibodies can be used in immunoassays for
CC   diagnosis of erythrovirus V9 infections
XX
SQ   Sequence 20 BP; 8 A; 4 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        893 ACAGTGGCTGAAGTACA 909
              |||| |||||| |||||
Db          1 ACAGAGGCTGATGTACA 17


RESULT 4647
AAX29455
ID   AAX29455 standard; DNA; 20 BP.
XX
AC   AAX29455;
XX
DT   10-JUN-1999  (first entry)
XX
DE   Rat JNK3-specific oligo ISIS No: 21912.
XX
KW   Antisense oligonucleotide; Jun N-terminal kinase; JNK; hybridise; JNK1;
KW   JNK2; JNK3; cell cycle progression; phosphorylation; tumour; probe; rat;
KW   hyperproliferative; stress-activated protein kinase; p54; SAP; ss.
XX
OS   Synthetic.
OS   Rattus norvegicus.
XX
PN   WO9909214-A1.
XX
PD   25-FEB-1999.
XX
PF   07-AUG-1998;   98WO-US016488.
XX
PR   13-AUG-1997;   97US-00910629.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Mckay R,  Dean N,  Monia BP,  Nero PS,  Gaarde WA;
XX
DR   WPI; 1999-181060/15.
XX
PT   New antisense oligonucleotides that detect and modulate the expression of
PT   Jun N-terminal kinase proteins - useful for treating hyperproliferative
PT   diseases and inhibiting tumor growth in animals, and for modulating
PT   protein phosphorylation by these proteins.
XX
PS   Example 7; Page 126; 190pp; English.
XX
CC   The invention relates to antisense oligonucleotides that detect and
CC   modulate the expression of Jun N-terminal kinase (JNK) proteins. The
CC   oligonucleotides specifically hybridize to a nucleic acid encoding a
CC   JNK1, JNK2 or JNK3 protein, and which modulate expression of these
CC   proteins. The oligonucleotides are useful for modulating JNK protein
CC   expression and cell cycle progression in cultured cells or animal cells.
CC   The oligonucleotides are also useful for modulating the phosphorylation
CC   of a protein that has been phosphorylated by a JNK protein, and the
CC   expression of a cellular protein that promotes one or more metastatic
CC   events. The oligonucleotides also form pharmaceutical compositions for
CC   treating animals with a hyperproliferative disease, and for inhibiting
CC   tumor growth in an animal. The invention also provides sequences that can
CC   specifically hybridise to nucleic acids encoding rat stress activated
CC   protein kinase (SAP) or p54, a homologue of human JNK protein
XX
SQ   Sequence 20 BP; 7 A; 4 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1457 GGAGACCAGAGTCCAGC 1473
              |||||||| |||| |||
Db          3 GGAGACCAAAGTCGAGC 19


RESULT 4648
AAZ86719/c
ID   AAZ86719 standard; DNA; 20 BP.
XX
AC   AAZ86719;
XX
DT   13-APR-2000  (first entry)
XX
DE   Antisense inhibitor of human JNKK1, ISIS #101252.
XX
KW   Antisense inhibitor; Jun N-terminal kinase kinase-1; JNKK; human;
KW   inflammation; infection; tumour; therapy; ss.
XX
OS   Homo sapiens.
XX
PN   US6010906-A.
XX
PD   04-JAN-2000.
XX
PF   21-JUL-1999;   99US-00358382.
XX
PR   21-JUL-1999;   99US-00358382.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Ward DT,  Cowsert LM;
XX
DR   WPI; 2000-115859/10.
XX
PT   New antisense compounds that inhibit expression of human Jun N-terminal
PT   kinase kinase-1 are useful for treating, preventing or diagnosing
PT   infection.
XX
PS   Example 15; Col 40; 32pp; English.
XX
CC   This sequence represents an antisense oligonucleotide of the invention.
CC   The antisense oligonucleotides are inhibitors of the expression of human
CC   Jun N-terminal kinase kinase-1 (JNKK1). The antisense oligonucleotides
```

```
CC   are used to treat or prevent diseases associated with JNKK1 expression,
CC   in human or veterinary medicine, e.g. inflammation, infections or
CC   tumours. They can also be used as research or diagnostic reagents in
CC   hybridisation assays
XX
SQ   Sequence 20 BP; 1 A; 10 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         48 CGCGCGGCGGGGGCGGC 64
              || ||||||| ||||||
Db         19 CGAGCGGCGGCGGCGGC 3


RESULT 4649
AAZ49841/c
ID   AAZ49841 standard; cDNA; 20 BP.
XX
AC   AAZ49841;
XX
DT   18-APR-2000  (first entry)
XX
DE   PCR primer 28sst-110F for oat ACCase cDNA amplification.
XX
KW   PCR primer; herbicide resistance; gene modification; herbicide;
KW   oat ACCase; maize acetyl CoA carboxylase; ACCase; plant oil content;
KW   marker-assisted plant selection; groat oil trait;
KW   restriction fragment length polymorphism mapping;
KW   high-energy animal feed; low-fat human food; ss.
XX
OS   Zea mays.
XX
PN   WO9967367-A1.
XX
PD   29-DEC-1999.
XX
PF   22-JUN-1999;   99WO-US014022.
XX
PR   22-JUN-1998;   98US-0090240P.
PR   02-JUL-1998;   98US-0091640P.
XX
PA   (MINU ) UNIV MINNESOTA.
PA   (USDA ) US DEPT OF AGRICULTURE.
PA   (EGLI/) EGLI M A.
PA   (GROH/) GROH S.
PA   (KIAN/) KIANIAN S F.
PA   (PHIL/) PHILLIPS R L.
PA   (RINE/) RINES H W.
PA   (SOME/) SOMERS D A.
XX
PI   Egli MA,  Groh S,  Kianian SF,  Phillips RL,  Rines HW,  Somers DA;
XX
DR   WPI; 2000-147205/13.
XX
PT   New DNA encoding acetyl-CoA carboxylase from oats, used to produce
PT   transformed plants with herbicide resistance and altered oil content.
XX
PS   Example 7; Page 58; 197pp; English.
XX
CC   The present sequence is a maize PCR primer 28sst-110F for amplification
CC   of oat ACCase (acetyl CoA carboxylase) cDNA. The primer is located within
CC   the transcarboxylase domain, surrounding the acetyl CoA binding site of
CC   ACCase. Transformation of plants with ACCase imparts resistance to
CC   cyclohexanedione and aryloxyphenoxypropanoic acid herbicides and alter
CC   the oil content. The ACCase DNA is also used as source of probes and
CC   primers for the identification of transgenic plants; in marker -assisted
CC   plant selection and for restriction fragment length polymorphism mapping,
CC   used for high-energy animal feed and high-fiber, low-fat human food and
CC   in genetic dissection of the groat oil trait
XX
SQ   Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1573 CCTTCTCCACCGCACAG 1589
              ||||||| | |||||||
Db         18 CCTTCTCAAACGCACAG 2


RESULT 4650
AAA40867/c
ID   AAA40867 standard; DNA; 20 BP.
XX
AC   AAA40867;
XX
DT   16-AUG-2000  (first entry)
XX
DE   Murine TNFalpha antisense oligonucleotide ISIS# 14846.
XX
KW   Antisense oligonucleotide; phosphorothioate; TNFalpha; cytokine; inhibit;
KW   tumour necrosis factor alpha; inflammatory bowel disease; diabetes;
KW   rheumatoid arthritis; infectious disease; multiple sclerosis; hepatitis;
KW   pancreatitis; atopic dermatitis; allograft rejection; autoimmune disease;
KW   inflammatory disease; ss.
XX
OS   Synthetic.
XX
PN   WO200020645-A1.
XX
PD   13-APR-2000.
XX
PF   05-OCT-1999;   99WO-US023205.
XX
PR   05-OCT-1998;   98US-00166186.
PR   18-MAY-1999;   99US-00313932.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baker BF,  Bennett CF,  Butler MM,  Shanahan WJ;
XX
DR   WPI; 2000-303808/26.
XX
PT   Oligonucleotide for treating diseases associated with human tumor
PT   necrosis factor-alpha (TNF-alpha) such as, diabetes and rheumatoid
PT   arthritis, comprises nucleotide sequence complementary to intron of
PT   nucleic acid encoding TNF-alpha.
XX
PS   Example 8; Page 72; 283pp; English.
XX
CC   This sequence represents an antisense oligonucleotide sequence which
CC   targets a region of the murine tumour necrosis factor alpha (TNFalpha)
CC   nucleotide sequence. TNFalpha is an important cytokine that plays a role
CC   in host defence. It is produced mainly in macrophages and monocytes in
CC   response to infection, invasion, injury or inflammation. Overexpression
CC   of TNFalpha can result in disease states, particularly in infectious,
CC   inflammatory and autoimmune diseases. The invention relates to antisense
CC   oligonucleotides, such as that represented by the present sequence which
CC   are capable of modulating the TNFalpha gene expression. The
CC   oligonucleotides optionally have a phosphorothioate backbone, and may
CC   also optionally contain at least one 2'-O-methoxyethyl modification. The
CC   oligonucleotides are useful for modulating the expression of human
CC   TNFalpha in cells and tissues, reducing a human cell inflammatory
CC   response, reducing the blood glucose level in a human and treating a
CC   human having a disease or condition associated with TNFalpha. Examples of
CC   diseases associated with TNFalpha include diabetes, inflammatory bowel
CC   disease, multiple sclerosis, pancreatitis, rheumatoid arthritis,
CC   infectious disease, hepatitis, atopic dermatitis or allograft rejection.
CC   The antisense oligonucleotides are also useful for modulating the
CC   function of a selected nucleic acid sequence in adipose tissue
XX
SQ   Sequence 20 BP; 1 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        453 CAGGCAGCCAGCAGCAG 469
              ||| |||||||||| ||
Db         20 CAGCCAGCCAGCAGAAG 4
```

RESULT 4651
AAZ28947/c
ID AAZ28947 standard; DNA; 20 BP.
XX
AC AAZ28947;
XX
DT 07-FEB-2000 (first entry)
XX
DE PCR primer c114 for determination of mutations in paraplegin gene.
XX
KW PCR primer c114; paraplegin; human; hereditary spastic paraplegia; HSP;
KW mutation; diagnosis; treatment; neurodegenerative condition;
KW Amyotrophic Lateral Sclerosis; ALS; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9958556-A2.
XX
PD 18-NOV-1999.
XX
PF 06-MAY-1999; 99WO-EP003112.
XX
PR 08-MAY-1998; 98IT-MI001003.
XX
PA (TELE-) FOND TELETHON.
XX
PI Ballabio A, Casari G;
XX
DR WPI; 2000-039065/03.
XX
PT A novel protein associated to hereditary spastic paraplegia used for the
PT diagnosis of neurodegenerative conditions.
XX
PS Disclosure; Page 14; 53pp; English.
XX
CC The present sequence is a PCR primer c114 used for determination of
CC mutations in paraplegin gene in hereditary spastic paraplegia (HSP)
CC patients. Detection of mutations helps in the diagnosis and treatment of
CC various forms of HSP or other neurodegenerative conditions, such as
CC Amyotrophic Lateral Sclerosis, caused due to abnormal expression of
CC paraplegin
XX
SQ Sequence 20 BP; 8 A; 1 C; 10 G; 1 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        339 CCTACTTTCCCCCTCCC 355
              | ||||||||| |||||
Db         17 CTTACTTTCCCTCTCCC 1
```

RESULT 4652
AAZ59205/c
ID AAZ59205 standard; DNA; 20 BP.
XX
AC AAZ59205;
XX
DT 20-APR-2000 (first entry)
XX
DE Forward PCR primer for human growth hormone gene.
XX
KW Fusion protein; Bacillus; cell wall protein; promoter; cleavage site;
KW TEV protease; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN JP11341991-A.
XX
PD 14-DEC-1999.
XX
PF 30-MAR-1999; 99JP-00089488.
XX
PR 31-MAR-1998; 98JP-00087339.
XX
PA (ITOH-) ITOHAM FOODS INC.
PA (UDAK/) UDAKA S.
XX
PI Sato S, Higashikuni N, Kudo T, Kondo M;
XX
DR WPI; 2000-101697/09.
XX
PT A DNA coding a new fused protein and preparation of a useful peptide
PT through its expression.
XX
PS Example 9; Page 16; 43pp; Japanese.
XX
CC The invention relates to a DNA construct encoding a fusion protein
CC comprising a Bacillus species cell wall protein fused to a cleavage
CC peptide and a heterologous protein. The fusion construct is placed
CC downstream of a Bacillus species promoter sequence. An example of the
CC construct is construct MWPsp-MWPmp20-TEV-GH, which comprises the Bacillus
CC brevis middle wall protein mp20 linked to the human growth hormone
CC protein via a TEV protease cleavable linker sequence. This sequence
CC represents the forward PCR primer for the human growth hormone (GH) gene
XX
SQ Sequence 20 BP; 4 A; 9 C; 0 G; 7 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1934 GTTAAGGTAATGGTTGG 1950
              | ||||| |||||||||
Db         20 GATAAGGGAATGGTTGG 4
```

RESULT 4653
AAZ59204/c
ID AAZ59204 standard; DNA; 20 BP.
XX
AC AAZ59204;
XX
DT 20-APR-2000 (first entry)
XX
DE Second strand cDNA synthesis primer for human growth hormone gene.
XX
KW Fusion protein; Bacillus; cell wall protein; promoter; cleavage site;
KW TEV protease; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN JP11341991-A.
XX
PD 14-DEC-1999.
XX
PF 30-MAR-1999; 99JP-00089488.
XX
PR 31-MAR-1998; 98JP-00087339.
XX
PA (ITOH-) ITOHAM FOODS INC.
PA (UDAK/) UDAKA S.
XX
PI Sato S, Higashikuni N, Kudo T, Kondo M;
XX

```
DR   WPI; 2000-101697/09.
XX
PT   A DNA coding a new fused protein and preparation of a useful peptide
PT   through its expression.
XX
PS   Example 8; Page 16; 43pp; Japanese.
XX
CC   The invention relates to a DNA construct encoding a fusion protein
CC   comprising a Bacillus species cell wall protein fused to a cleavage
CC   peptide and a heterologous protein. The fusion construct is placed
CC   downstream of a Bacillus species promoter sequence. An example of the
CC   construct is construct MWPsp-MWPmp20-TEV-GH, which comprises the Bacillus
CC   brevis middle wall protein mp20 linked to the human growth hormone
CC   protein via a cleavable linker sequence. This sequence represents a
CC   primer for the synthesis of the second cDNA strand of the human growth
CC   hormone (GH) gene from purified mRNA
XX
SQ   Sequence 20 BP; 4 A; 9 C; 0 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1934 GTTAAGGTAATGGTTGG 1950
              | ||||| |||||||||
Db         20 GATAAGGGAATGGTTGG 4


RESULT 4654
AAA94533/c
ID   AAA94533 standard; DNA; 20 BP.
XX
AC   AAA94533;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20973 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Optionally the internucleotide linkages are
FT                   phosphorothioate"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 40; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1503 AGAAACACAGGAAATAA 1519
              ||||||| | |||||||
Db         17 AGAAACAAATGAAATAA 1


RESULT 4655
AAA38540
ID   AAA38540 standard; DNA; 20 BP.
XX
AC   AAA38540;
XX
DT   04-SEP-2000  (first entry)
XX
DE   Jellyfish green fluorescent protein (GFP) gene reverse PCR primer.
XX
KW   Green fluorescent protein; GFP gene; jellyfish; PCR apparatus;
KW   hydrophilic oxide film; PCR primer; ss.
XX
OS   Aequorea victoria.
XX
PN   JP3041423-B1.
XX
PD   15-MAY-2000.
XX
PF   19-FEB-1999;   99JP-00040811.
XX
PR   19-FEB-1999;   99JP-00040811.
XX
PA   (HOKU-) HOKURIKU SENTAN KAGAKU GIJUTSU DAIGAKUIN DAIGAKUCHO.
XX
DR   WPI; 2000-402709/35.
XX
PT   Polymerase chain reactor in gene analysis, performs polymerase chain
PT   reaction in each micro well of micro well IC, to form oxide film which is
PT   then removed so that inner side of micro well becomes hydrophobic.
XX
PS   Example; Page 2; 5pp; Japanese.
XX
CC   The invention relates to a novel apparatus for performing PCR. This
CC   apparatus consists of a micro-well integrated unit formed on surface of a
CC   semiconductor substrate. The inner wall of each micro-well is coated with
CC   a hydrophilic oxide film. PCR reactions are performed in each micro-well,
CC   and the hydrophilic film is then removed from the semiconductor substrate
CC   so that the inner wall becomes hydrophobic. The apparatus allows the
CC   simultaneous PCR amplification of small amounts of template DNA. It may
CC   be used for PCR amplification of DNA samples for a variety of purposes
CC   e.g., in the diagnosis of genetic diseases, or in forensic science.
```

```
CC   Sequences AAA38539-A38540 represent PCR primers used to amplify the green
CC   fluorescent protein (GFP) gene of the jellyfish Aequorea victoria using
CC   the apparatus of the invention. Amplified product was detected using a
CC   fluorescently labelled probe (AAA38541)
XX
SQ   Sequence 20 BP; 6 A; 6 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        163 CGCCATGTTGTGGAAAA 179
              | |||||||||| ||||
Db          4 CCCCATGTTGTGCAAAA 20


RESULT 4656
AAZ29763
ID   AAZ29763 standard; DNA; 20 BP.
XX
AC   AAZ29763;
XX
DT   27-MAR-2000  (first entry)
XX
DE   Human thymidylate synthase antisense oligonucleotide 16027.
XX
KW   Antisense; oligonucleotide; thymidylate synthase; cell proliferation;
KW   hyperproliferative disease; cancer; primer; phosphorothioate linkage;
KW   thymidylate synthase-associated tumour; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /note= "phosphorothioate linkages"
FT   modified_base   1. .6
FT                   /*tag=  b
FT                   /note= "2'-methoxyethoxy nucleotides"
FT   modified_base   2
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   5
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   15. .20
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethoxy nucleotides"
FT   modified_base   16
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   17
FT                   /*tag=  g
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  h
FT                   /mod_base= m5c
XX
PN   WO9963114-A1.
XX
PD   09-DEC-1999.
XX
PF   01-JUN-1999;   99WO-US012080.
XX
PR   02-JUN-1998;   98US-00089195.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean N;
XX
DR   WPI; 2000-116373/10.
XX
PT   Antisense oligonucleotides to thymidylate synthase gene for treating e.g.
PT   hyperproliferative diseases such as cancer.
XX
PS   Example 2; Page 40; 66pp; English.
XX
CC   The present sequence is the antisense oligonucleotide 16027. It is a
CC   mismatch sequence derived from oligonucleotide 13790 which is
CC   complementary to a portion of the coding region (111-130) of human
CC   thymidylate synthase gene. It is capable of modulating the expression of
CC   thymidylate synthase by hybridising to the specific target region on the
CC   gene. This oligonucleotide inhibits cell proliferation when a
CC   therapeutically or prophylactically effective amount is administered. It
CC   can be used for diagnosis and treatment of hyperproliferative diseases
CC   like cancer and to distinguish thymidylate synthase-associated tumours
CC   from tumours having other etiologies, in humans
XX
SQ   Sequence 20 BP; 4 A; 9 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        370 CTACTCCCAGTCGGCCG 386
              | |||||||| ||||||
Db          2 CAACTCCCAGGCGGCCG 18


RESULT 4657
AAZ56191/c
ID   AAZ56191 standard; DNA; 20 BP.
XX
AC   AAZ56191;
XX
DT   28-MAR-2000  (first entry)
XX
DE   Oligonucleotide A1.5 for IL-4/IL-13 receptor expression inhibition.
XX
KW   Interleukin-4; IL-4; interleukin-13; IL-13; antisense oligonucleotide;
KW   asthma; allergy; cancer; receptor expression inhibitor; immunoglobulin E;
KW   IgE; inflammation; hypereosinophilia; ss.
XX
OS   Homc sapiens.
XX
PN   WO9966037-A2.
XX
PD   23-DEC-1999.
XX
PF   17-JUN-1999;   99WO-CA000572.
XX
PR   17-JUN-1998;   98CA-02235420.
XX
PA   (REEX-) RECH EXPERTISES & DEV MEDICAUX PARENZ IN.
XX
PI   Renzi P;
XX
DR   WPI; 2000-097743/08.
XX
PT   Antisense oligonucleotides directed to CCR3, interleukin or granulocyte
PT   macrophage colony stimulating factor receptors, used for treating or
PT   preventing asthma, allergies, hypereosinophilia, inflammation or cancer.
XX
PS   Claim 5; Page 19; 72pp; English.
XX
CC   This is an antisense oligonucleotide directed against the common subunits
CC   of the interleukin-4 (IL-4) receptor and the interleukin-13 (IL-13)
CC   receptor. The antisense oligonucleotide inhibits IL-13 and IL-4 receptor
CC   expression. IL-4 and IL-13 are involved in immunoglobulin E (IgE)
CC   production, the development and persistence of asthma and atopy. The
CC   invention relates to antisense oligonucleotides directed against a
CC   nucleic acid sequence encoding either a chemokine receptor (CCR3), a
CC   common subunit of IL-4 and IL-13 receptors, or a common subunit of
CC   interleukin-3 (IL-3), interleukin-5 (IL-5) and granulocyte macrophage
```

```
CC   colony stimulating factor (GM-CSF) receptors. The antisense
CC   oligonucleotides can be used in the treatment or prevention of asthma,
CC   allergy, hypereosinophilia, general inflammation or cancer
XX
SQ   Sequence 20 BP; 0 A; 16 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              | ||||||||||| |||
Db         18 GGGGCGGGGGCGGGGGC 2


RESULT 4658
ABK12263
ID   ABK12263 standard; DNA; 20 BP.
XX
AC   ABK12263;
XX
DT   05-JUN-2002  (first entry)
XX
DE   Capra hircus aegagrus growth hormone gene associated oligonucleotide #5.
XX
KW   Growth hormone; Capra hircus aegagrus; ds.
XX
OS   Unidentified.
XX
PN   KR99042572-A.
XX
PD   15-JUN-1999.
XX
PF   27-NOV-1997;   97KR-00063428.
XX
PR   27-NOV-1997;   97KR-00063428.
XX
PA   (LEEH/) LEE H H.
XX
PI   Chung SW,  Han YM,  Lee CS,  Lee HH,  Chang HY,  Baek MG,  Lee GG;
XX
DR   WPI; 2000-419386/36.
XX
PT   Capra hircus aegagrus growth hormone gene.
XX
PS   Example 3; Page 6; 16pp; Korean.
XX
CC   The present invention relates to a new Capra hircus aegagrus growth
CC   hormone gene. The present nucleic acid sequence represents an
CC   oligonucleotide sequence used in the methods of the invention for
CC   analysis of the Capra hircus aegagrus growth hormone gene of the
CC   invention
XX
SQ   Sequence 20 BP; 5 A; 5 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        837 TCTGCTCAGTCCCTGGA 853
              | | ||||||||||||||
Db          4 TGTTCTCAGTCCCTGGA 20


RESULT 4659
AAC62998
ID   AAC62998 standard; DNA; 20 BP.
XX
AC   AAC62998;
XX
DT   06-FEB-2001  (first entry)
XX
DE   JNK antisense oligonucleotide ISIS #21912.
XX
KW   Antisense; gene therapy; JNK2 protein; apoptosis; cancer;
KW   cellular hyperproliferation; Alzheimer's; Parkinson's disease;
KW   amylotrophic lateral sclerosis; retinitis; pigmentosa; epilepsy;
KW   myocardial infarction; stroke; obstructive jaundice; polycystic kidney;
KW   diabetes; Jun N-terminal kinase; ss.
XX
OS   Homo sapiens.
XX
PN   WO200059549-A1.
XX
PD   12-OCT-2000.
XX
PF   04-APR-2000; 2000WO-US008880.
XX
PR   07-APR-1999;   99US-00287796.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Mckay R,  Dean NM,  Monia BP,  Nero PS,  Gaarde WA;
XX
DR   WPI; 2000-638427/61.
XX
PT   Novel methods for reducing apoptosis comprising contacting cells with
PT   antisense oligonucleotides, useful for treating apoptotic disorders, e.g.
PT   cancer.
XX
PS   Example 8; Page 156; 160pp; English.
XX
CC   The present invention relates to antisense oligonucleotides (AAC62844-
CC   C63000, AAA96093-A96099 and AAA07993) that hybridise specifically to a
CC   nucleotide encoding a Jun N-terminal kinase (JNK2) protein, resulting in
CC   decrease of JNK2 expression and leading to induction of apoptosis. The
CC   present sequence is one such antisense oligonucleotide. The
CC   oligonucleotides of the present invention are useful for treating
CC   diseases or conditions with reduced apoptosis, e.g. cancer and cellular
CC   hyperproliferation. The oligonucleotides may also be used to increase the
CC   stimulation of apoptotic proteins, e.g. for treating Alzheimer's or
CC   Parkinson's disease, amylotrophic lateral sclerosis, retinitis,
CC   pigmentosa, epilepsy, myocardial infarction, stroke, obstructive
CC   jaundice, polycystic kidney and diabetes. The present sequence may have a
CC   phosphorothioate backbone
XX
SQ   Sequence 20 BP; 7 A; 4 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1457 GGAGACCAGAGTCCAGC 1473
              |||||||| |||| |||
Db          3 GGAGACCAAAGTCGAGC 19


RESULT 4660
AAC64800/c
ID   AAC64800 standard; DNA; 20 BP.
XX
AC   AAC64800;
XX
DT   01-MAR-2001  (first entry)
XX
DE   Human plakophilin-3 PCR primer SEQ ID NO:15.
XX
KW   Plakophilin-3; PKP3; catenin-like protein; characterisation; diagnosis;
KW   desmosome; epithelial cell; skin disease; dermatological; gene therapy;
KW   vaccine; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200066619-A2.
XX
PD   09-NOV-2000.
```

XX
PF 28-APR-2000; 2000WO-EP004389.
XX
PR 30-APR-1999; 99EP-00870093.
XX
PA (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI Van Roy F, Bonne S;
XX
DR WPI; 2000-687529/67.
XX
PT Nucleic acids encoding Plakophilin-3 polypeptides, useful for treating
PT skin diseases and disorders of epithelial tissue associated with
PT inappropriate Plakophilin-3 expression and activity.
XX
PS Example 1; Page 19; 132pp; English.
XX
CC The present invention describes an isolated or recombinant nucleic acid
CC molecule (I) encoding a Plakophilin-3 (PKP3), from humans, mice and
CC Xenopus laevis. (I) has dermatological activity, and can be used in gene
CC therapy and for vaccines. (I) and the protein it encodes may be used in
CC the prevention, treatment and diagnosis of diseases associated with
CC inappropriate PKP3 expression, such as skin diseases and disorders
CC affecting epithelial tissue. For example, (I) (and vectors containing
CC (I)) and the PKP3 polypeptide may be used to treat disorders associated
CC with decreased PKP3 expression by rectifying mutations or deletions in a
CC patient's genome that affect the activity of PKP3 by expressing inactive
CC proteins or to supplement the patients own production of PKP3
CC polypeptides. Additionally, (I) may be used to produce PKP3, according to
CC standard recombinant DNA methodology, by inserting the nucleic acids into
CC a host cell and culturing the cell to express the protein. (I) and
CC complementary sequences may also be used as DNA probes in diagnostic
CC assays to detect and quantitate the presence of similar nucleic acid
CC sequences in samples, and hence which patients may be in need of
CC restorative therapy. The PKP3 polypeptides may be used as antigens in the
CC production of antibodies against PKP3 and in assays to identify
CC modulators (agonists and antagonists) of PKP3 expression and activity.
CC The anti-PKP3 antibodies and PKP3 antagonists may also be used to down
CC regulate PKP3 expression and activity. The anti-PKP3 antibodies may also
CC be used as diagnostic agents for detecting the presence of PKP3
CC polypeptides in samples (e.g. by enzyme linked immunosorbant assay
CC (ELISA)). PKP3 is a catenin-like protein, which is present in desmosomes
CC and nuclei of epithelial cells. The present sequence represents a PCR
CC primer for human PKP3, which is used in an example from the present
CC invention
XX
SQ Sequence 20 BP; 4 A; 3 C; 9 G; 4 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        591 CCTACCGCCGCTCCGAC 607
              ||||||||| || ||||
Db         19 CCTACCGCCTCTACGAC 3
```

RESULT 4661
AAA74057
ID AAA74057 standard; DNA; 20 BP.
XX
AC AAA74057;
XX
DT 29-NOV-2000 (first entry)
XX
DE Forward PCR primer for loblolly pine locus RIPPT298.
XX
KW PCR primer; loblolly pine; Simple Sequence Repeat; SSR;
KW microsatellite DNA repeat; genetic marker; mapping; inheritance study;
KW population genetics study; plant breeding programme; ss.
XX
OS Pinus taeda.
XX
PN WO200042210-A2.
XX
PD 20-JUL-2000.
XX
PF 06-JAN-2000; 2000WO-US000325.
XX
PR 15-JAN-1999; 99US-00232884.
PR 19-JAN-1999; 99US-00232785.
XX
PA (INTO) INT PAPER CO.
PA (ECHT/) ECHT C S.
PA (NELS/) NELSON C D.
PA (USDA) US SEC OF AGRIC.
XX
PI Echt CS, Nelson CD;
XX
DR WPI; 2000-482836/42.
XX
PT Polynucleotide having simple sequence repeat useful as markers in plants
PT for genetic characterization e.g. genetic mapping study, an inheritance
PT study of a commercially important trait in a plant breeding program.
XX
PS Claim 6; Page 22; 57pp; English.
XX
CC The present invention relates to loblolly pine polynucleotides with one
CC or more Simple Sequence Repeats (SSRs) (see AAA74205-A74322). SSRs are
CC also known as microsatellite DNA repeats. The SSRs are useful as genetic
CC markers for genetic mapping, population genetics studies and inheritance
CC studies in various plant breeding programmes. The present sequence is a
CC PCR primer used for detecting the presence of a SSR locus in a pine
CC genomic DNA sample
XX
SQ Sequence 20 BP; 3 A; 8 C; 1 G; 8 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        754 TCCCATTTCCATGACCA 770
              | || ||||||||||||
Db          4 TTCCCTTTCCATGACCA 20
```

RESULT 4662
AAF31794/c
ID AAF31794 standard; DNA; 20 BP.
XX
AC AAF31794;
XX
DT 10-APR-2001 (first entry)
XX
DE Human RANK antisense oligonucleotide, SEQ ID NO: 52.
XX
KW Human; cytostatic; antiinflammatory; antisense oligonucleotide; cancer;
KW receptor activator of NF-kappaB; RANK; infection; inflammation; ss.
XX
OS Homo sapiens.
XX
PN US6171860-B1.
XX
PD 09-JAN-2001.
XX
PF 05-NOV-1999; 99US-00435296.
XX
PR 05-NOV-1999; 99US-00435296.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Baker BF, Cowsert LM;
XX
DR WPI; 2001-136876/14.
XX
PT Novel antisense compounds capable of modulating expression of human

PT receptor activator of NF-kappaB useful for diagnosis, prophylaxis and
PT treatment of diseases associated with expression of RANK.
XX
PS Claim 14; Col 43; 40pp; English.
XX
CC The present sequence is one of a number of antisense compounds of 8 to 30
CC nucleobases in length that have been designed to target a 5'untranslated
CC region, start codon, coding region or 3'untranslated region of the human
CC receptor activator of NF-kappaB (RANK). The antisense compounds
CC specifically hybridise with and inhibit the expression of RANK. The
CC antisense oligonucleotides are useful for inhibiting the expression of
CC human RANK in human cells or tissues. They can be utilised for
CC diagnostics, therapeutics for the treatment of diseases associated with
CC the expression of RANK, prophylaxis e.g. to prevent or delay infection,
CC inflammation or tumour formation, and as research reagent. The antisense
CC compounds are safely and effectively administered to humans
XX
SQ Sequence 20 BP; 0 A; 8 C; 7 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1457 GGAGACCAGAGTCCAGC 1473
|||| |||||| |||||
Db 20 GGAGGCCAGAGACCAGC 4

RESULT 4663
AAH75301/c
ID AAH75301 standard; DNA; 20 BP.
XX
AC AAH75301;
XX
DT 02-OCT-2001 (first entry)
XX
DE Mouse inducible NOS antisense oligonucleotide SEQ ID NO 145.
XX
KW Antisense oligonucleotide; inducible nitric oxide synthase; NOS;
KW modulate expression; immunomodulator; antidiabetic; cardiovascular;
KW cardiant; neuroprotective; vasotropic; ischaemia; reperfusion injury;
KW 2'-O-methoxyethyl; phosphorothioate; mouse; ss.
XX
OS Mus sp.
XX
FH Key Location/Qualifiers
FT modified_base 1. .20
FT /*tag= a
FT /mod_base= OTHER
FT /note= "phosphorothioate backbone, 5' and 3' five
FT nucleotide 2'-MOE (2'-O-methoxyethyl) wings, all cytidine
FT residues are 5-methylcytidines and a deoxy gap"
XX
PN WO200152902-A1.
XX
PD 26-JUL-2001.
XX
PF 15-JAN-2001; 2001WO-US001381.
XX
PR 24-JAN-2000; 2000US-00490208.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Dean NM, Cowsert LM;
XX
DR WPI; 2001-465340/50.
XX
PT New antisense oligonucleotides for modulating the expression of inducible
PT nitric oxide synthase in cells or tissues, particularly useful for
PT treating e.g. immunological, cardiovascular or neurological disorders, or
PT ischemia.
XX
PS Example 17; Page 86; 144pp; English.
XX
CC The invention relates to antisense compounds, especially
CC oligonucleotides, which are targeted to a nucleic acid encoding inducible
CC nitric oxide synthase and which specifically hybridise to and modulate
CC expression of inducible nitric oxide synthase. The antisense compounds
CC have immunomodulator, antidiabetic, cardiovascular, cardiant,
CC neuroprotective, disorder and vasotropic activity. The antisense
CC oligonucleotides are useful for inhibiting the expression of inducible
CC nitric oxide synthase in cells or tissues. In particular, the antisense
CC oligonucleotides are useful for treating diseases or disorders associated
CC with inducible nitric oxide synthase, e.g. diabetes, immunological
CC disorder, cardiovascular disorder, neurological disorder or
CC ischaemia/reperfusion injury. The antisense oligonucleotides are also
CC useful for research and diagnostics. The present sequence is that of an
CC antisense 2'-O-methoxyethyl gapmer oligonucleotide with a
CC phosphorothioate backbone, a central "gap" region of ten nucleotides
CC flanked by five nucleotide 2'-MOE (2'-methoxyethyl) wings and 5-
CC methylcytidine residues throughout the oligonucleotide. The antisense
CC oligonucleotide is targeted to mouse inducible nitric oxide synthase (NOS)
CC mRNA (AAH47974)
XX
SQ Sequence 20 BP; 4 A; 1 C; 6 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1431 TCATAGACAAATCCTAC 1447
||| || ||||||||||
Db 20 TCAAAGTCAAATCCTAC 4

RESULT 4664
AAK95000/c
ID AAK95000 standard; DNA; 20 BP.
XX
AC AAK95000;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human cDNA clone-specific primer, SEQ ID NO: 4245.
XX
KW Human; full length cDNA; cDNA synthesis; oligo-capping; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN EP1130094-A2.
XX
PD 05-SEP-2001.
XX
PF 07-JUL-2000; 2000EP-00114089.
XX
PR 08-JUL-1999; 99JP-00194486.
PR 11-JAN-2000; 2000JP-00118774.
PR 02-MAY-2000; 2000JP-00183765.
XX
PA (HELI-) HELIX RES INST.
XX
PI Ota T, Nishikawa T, Isogai T, Hayashi K, Ishii S, Kawai Y;
PI Wakamatsu A, Sugiyama T, Nagai K, Kojima S, Otsuki T, Koga H;
XX
DR WPI; 2001-524255/58.
XX
PT 830 Primers useful for synthesizing full length cDNA clones and their use
PT in genetic manipulation.
XX
PS Example 18; Page 128; 1380pp + Sequence Listing; English.
XX
CC The invention relates to primers for synthesising full length cDNA
CC clones. 830 cDNA molecules encoding a human protein have been isolated
CC and nucleotide sequences of 5'- and 3'-ends of the cDNA molecules have
CC been determined. Primers for synthesising the full length cDNA are useful
CC for clarifying the function of the protein encoded by the cDNA. The full

```
CC   length clones were obtained by construction of full length enriched cDNA
CC   libraries that were synthesised by the oligo-capping method. The primers
CC   enable the production of the full length cDNA easily without any special
CC   methods. The present sequence is a primer used to amplify a human cDNA
CC   clone provided in the invention
XX
SQ   Sequence 20 BP; 8 A; 6 C; 5 G; 1 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1647 AGCCTTCACTGGTTCTG 1663
              ||||||| ||| |||||
Db         20 AGCCTTCTCTGTTTCTG 4


RESULT 4665
AAF73065
ID   AAF73065 standard; DNA; 20 BP.
XX
AC   AAF73065;
XX
DT   24-APR-2001  (first entry)
XX
DE   Human daxx inhibitory antisense phosphorothioate oligonucleotide SEQ:166.
XX
KW   Antisense oligonucleotide; daxx; inhibition; phosphorothioate;
KW   Fas binding protein; CENP-C binding protein; dap6; EAP; cytostatic;
KW   antiinflammatory; death associated protein 6; Ets-1 associated protein;
KW   infection; inflammation; tumour formation; ss.
XX
OS   Homo sapiens.
XX
PN   US6180353-B1.
XX
PD   30-JAN-2001.
XX
PF   24-JAN-2000; 2000US-00490692.
XX
PR   24-JAN-2000; 2000US-00490692.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean NM,  Cowsert LM;
XX
DR   WPI; 2001-217744/22.
XX
PT   Novel antisense compounds capable of modulating expression of daxx useful
PT   for diagnosis, prophylaxis and treatment of diseases associated with
PT   expression of daxx.
XX
PS   Claim 1; Col 49; 59pp; English.
XX
CC   The present invention describes an antisense compound (I) up to 30
CC   nucleobases in length, where (I) inhibits expression of daxx (also known
CC   as Fas binding protein, CENP-C binding protein, dap6 for death associated
CC   protein 6 and EAP for Ets-1 associated protein). (I) has cytostatic and
CC   antiinflammatory activity, and can be used in antisense therapy and as a
CC   modulator of daxx. (I) is useful for inhibiting the expression of daxx in
CC   cells or tissues in vitro. (I) can be utilised for diagnostics,
CC   therapeutics for the treatment of diseases associated with the expression
CC   of daxx, prophylaxis e.g. to prevent or delay infection, inflammation or
CC   tumour formation and as research reagent. The present sequence represents
CC   an inhibitory human daxx antisense phosphorothioate oligonucleotide which
CC   is used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 6 A; 6 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2032 AGGCAAAGGTTCTATCT 2048
              ||||||| ||| ||||
Db          1 AGGCAAAGCTTCCATCT 17


RESULT 4666
AAS45802/c
ID   AAS45802 standard; DNA; 20 BP.
XX
AC   AAS45802;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Mouse PARP-2 antisense inhibitor ISIS #110268.
XX
KW   Mouse; ss; PARP; Poly (ADP-ribose) polymerase; antisense oligonucleotide;
KW   cytostatic; nootropic; neuroprotective; antiinflammatory; antidiabetic;
KW   immunosuppressant; hyperproliferative disorder; cancer; cellular injury;
KW   oxidative stress; neurological disorder; parkinsonism; apoptosis;
KW   meningitis-associated intracranial complication; ischaemia; probe;
KW   inflammatory disorder; autoimmune disorder; arthritis; diabetes.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .20
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "All cytidine residues are 5-methyl cytidine"
FT   modified_base   1. .5
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   16. .20
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "2' methoxyethyl nucleotides"
XX
PN   WO200164955-A1.
XX
PD   07-SEP-2001.
XX
PF   01-MAR-2001; 2001WO-US006572.
XX
PR   02-MAR-2000; 2000US-00517467.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Popcff I,  Cowsert LM;
XX
DR   WPI; 2001-602570/68.
XX
PT   Antisense compound useful for treating hyperproliferative, neurological,
PT   inflammatory and autoimmune disorders and diabetes inhibits human PARP.
XX
PS   Example 17; Page 89; 168pp; English.
XX
CC   The invention relates to antisense oligonucleotides targeted to human
CC   PARP nucleic acid and inhibiting expression of human PARP. PARP (Poly
CC   (ADP-ribose) polymerase plays an important role in chromatin
CC   decondensation, DNA replication, DNA repair, gene expression, malignant
CC   transformation, cellular differentiation and apoptosis. The antisense
CC   oligonucleotide inhibitors are useful for inhibiting the expression of
CC   PARP in human cells or tissues. They are also useful for treating a human
CC   with a disease associated with PARP especially hyperproliferative
CC   disorders (e.g. cancer), cellular injury resulting from oxidative stress,
CC   neurological (e.g parkinsonism, meningitis-associated intracranial
CC   complications and ischaemia) , inflammatory and autoimmune disorders (e.g
CC   arthritis) and diabetes. The present sequence is an antisense
```

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CC   oligonucleotide of the invention
XX
SQ   Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         22 TCCAGTGACCCGGACAG 38
              |||||| | ||||||||
Db         17 TCCAGTAATCCGGACAG 1


RESULT 4667
AAC92903
ID   AAC92903 standard; DNA; 20 BP.
XX
AC   AAC92903;
XX
DT   27-MAR-2001  (first entry)
XX
DE   Human PI3 kinase p55 gamma antisense oligonucleotide, SEQ ID NO:86.
XX
KW   Human phosphatidylinositol 3-kinase p55 gamma regulatory subunit;
KW   PI3 kinase p55 gamma; hp55-gamma; p55-gamma; PIK3R3; p55PIK;
KW   signal transduction; downstream effector; receptor tyrosine kinase;
KW   insulin receptor; IR; insulin-like growth factor receptor; IGFR;
KW   cell growth; differentiation; apoptosis; developmental regulation;
KW   alternative splicing; tumour formation; cancer; inflammation; infection;
KW   expression inhibition; phosphorothioate; antisense oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
PN   US6165790-A.
XX
PD   26-DEC-2000.
XX
PF   03-NOV-1999;   99US-00433694.
XX
PR   03-NOV-1999;   99US-00433694.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Borchers AH,  Cowsert LM,  Ward DT;
XX
DR   WPI; 2001-101697/11.
XX
PT   Novel antisense compound targeted to human pI3 kinase p55 gamma
PT   specifically hybridizes with and inhibits the expression of human pI3
PT   kinase p55 gamma, useful for modulating the expression of pI3 kinase p55
PT   gamma in cells.
XX
PS   Claim 14; Col 43-44; 39pp; English.
XX
CC   Sequences AAC92827-C92906 represent phosphorothioate antisense
CC   oligonucleotides targetted to the phosphatidylinositol 3-kinase p55 gamma
CC   regulatory subunit (PI3 kinase p55 gamma) gene, which inhibit its
CC   expression. The antisense oligonucleotides were designed to target
CC   different regions of human PI3 kinase p55 mRNA species, and were analysed
CC   for their effect on PI3 kinase p55 mRNA levels by quantitative real-time
CC   PCR. PI3 kinase p55 gamma (also known as hp55-gamma, p55-gamma, PIK3R3
CC   and p55PIK) is one of several PI3 kinase regulatory subunits that may
CC   associate with the PI3 kinase catalytic subunit to form a heterodimeric
CC   PI3 kinase holoenzyme. PI3 kinases act as downstream effectors of
CC   receptor tyrosine kinases such as growth factor and hormone receptors and
CC   oncogene products, and are found in association with the cytoplasmic
CC   domains of such receptors. PI3 kinase p55 gamma is able to interact with
CC   both the insulin receptor (IR) and the insulin-like growth factor
CC   receptor (IGFR), which play important roles in growth, differentiation
CC   and apoptosis. PI3 kinase p55 gamma is thought to be developmentally
CC   regulated, as four distinct mRNA species are found in adult tissues,
CC   while only the larger mRNA is expressed in foetal tissues. The
CC   oligonucleotides of the invention are useful for diagnosis, prevention
CC   and treatment of conditions associated with PI3 kinase p55 expression,
CC   such as tumour formation, inflammation and certain infections, and allow
CC   expression level modulation of the alternatively spliced forms of PI3
CC   kinase p55
XX
SQ   Sequence 20 BP; 6 A; 4 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2293 TGAAAAGGGTAGGCACG 2309
              |||| |||||||||| |
Db          1 TGAACAGGGTAGGCAAG 17


RESULT 4668
AAC92905
ID   AAC92905 standard; DNA; 20 BP.
XX
AC   AAC92905;
XX
DT   27-MAR-2001  (first entry)
XX
DE   Human PI3 kinase p55 gamma antisense oligonucleotide, SEQ ID NO:88.
XX
KW   Human phosphatidylinositol 3-kinase p55 gamma regulatory subunit;
KW   PI3 kinase p55 gamma; hp55-gamma; p55-gamma; PIK3R3; p55PIK;
KW   signal transduction; downstream effector; receptor tyrosine kinase;
KW   insulin receptor; IR; insulin-like growth factor receptor; IGFR;
KW   cell growth; differentiation; apoptosis; developmental regulation;
KW   alternative splicing; tumour formation; cancer; inflammation; infection;
KW   expression inhibition; phosphorothioate; antisense oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
PN   US6165790-A.
XX
PD   26-DEC-2000.
XX
PF   03-NOV-1999;   99US-00433694.
XX
PR   03-NOV-1999;   99US-00433694.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Borchers AH,  Cowsert LM,  Ward DT;
XX
DR   WPI; 2001-101697/11.
XX
PT   Novel antisense compound targeted to human pI3 kinase p55 gamma
PT   specifically hybridizes with and inhibits the expression of human pI3
PT   kinase p55 gamma, useful for modulating the expression of pI3 kinase p55
PT   gamma in cells.
XX
PS   Claim 14; Col 43-44; 39pp; English.
XX
CC   Sequences AAC92827-C92906 represent phosphorothioate antisense
CC   oligonucleotides targetted to the phosphatidylinositol 3-kinase p55 gamma
CC   regulatory subunit (PI3 kinase p55 gamma) gene, which inhibit its
CC   expression. The antisense oligonucleotides were designed to target
CC   different regions of human PI3 kinase p55 mRNA species, and were analysed
CC   for their effect on PI3 kinase p55 mRNA levels by quantitative real-time
CC   PCR. PI3 kinase p55 gamma (also known as hp55-gamma, p55-gamma, PIK3R3
CC   and p55PIK) is one of several PI3 kinase regulatory subunits that may
CC   associate with the PI3 kinase catalytic subunit to form a heterodimeric
CC   PI3 kinase holoenzyme. PI3 kinases act as downstream effectors of
CC   receptor tyrosine kinases such as growth factor and hormone receptors and
CC   oncogene products, and are found in association with the cytoplasmic
CC   domains of such receptors. PI3 kinase p55 gamma is able to interact with
CC   both the insulin receptor (IR) and the insulin-like growth factor
CC   receptor (IGFR), which play important roles in growth, differentiation
CC   and apoptosis. PI3 kinase p55 gamma is thought to be developmentally
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CC   regulated, as four distinct mRNA species are found in adult tissues,
CC   while only the larger mRNA is expressed in foetal tissues. The
CC   oligonucleotides of the invention are useful for diagnosis, prevention
CC   and treatment of conditions associated with PI3 kinase p55 expression,
CC   such as tumour formation, inflammation and certain infections, and allow
CC   expression level modulation of the alternatively spliced forms of PI3
CC   kinase p55
XX
SQ   Sequence 20 BP; 5 A; 5 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1370 AGCCAGGCCATCTGTGC 1386
              ||| ||| ||||||||||
Db          4 AGCGAGGGCATCTGTGC 20


RESULT 4669
AAH77763/c
ID   AAH77763 standard; DNA; 20 BP.
XX
AC   AAH77763;
XX
DT   13-NOV-2001  (first entry)
XX
DE   PCR primer for human thrombospondin 1-like protein cDNA.
XX
KW   Thrombospondin 1-like protein; TSP1-like protein; vesicle transport;
KW   brain tumour; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200109321-A1.
XX
PD   08-FEB-2001.
XX
PF   28-JUL-2000; 2000WO-JP005068.
XX
PR   29-JUL-1999;   99JP-00248036.
PR   27-AUG-1999;   99JP-00300253.
PR   18-OCT-1999;   99US-0159590P.
PR   11-JAN-2000; 2000JP-00118776.
PR   17-FEB-2000; 2000US-0183322P.
PR   02-MAY-2000; 2000JP-00183767.
XX
PA   (HELI-) HELIX RES INST.
XX
PI   Ota T,  Isogai T,  Nishikawa T,  Hayashi K,  Saito K,  Yamamoto J;
PI   Ishii S,  Sugiyama T,  Wakamatsu A,  Nagai K,  Otsuki T,  Murakami K;
PI   Yano K,  Kanzaki K,  Inoue Y;
XX
DR   WPI; 2001-541222/60.
XX
PT   Gene encoding thrombospondin-like protein, and the protein and antibodies
PT   to it, useful for diagnosis and treatment of brain tumors.
XX
PS   Example 9; Page 28; 105pp; Japanese.
XX
CC   PCR primers AAH77763-65 were used to amplify cDNA encoding a
CC   thrombospondin 1-like (TSP1-like) protein. The cDNA sequence encoding
CC   human TSP1-like protein was isolated from a human 10 week-aged foetal
CC   tissue cDNA library. The TSP1-like protein may be involved in
CC   intracellular vesicle transport. Secretion of the TSP1-like protein is
CC   reduced in brain tumours. It can be used in the screening of target
CC   compounds, and is useful for diagnosis, prediction and treatment of brain
CC   tumour
XX
SQ   Sequence 20 BP; 5 A; 7 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1210 GAAGAACATGCTATTGG 1226
              |||| |||||| |||||
Db         17 GAAGCACATGCGATTGG 1


RESULT 4670
AAH21418
ID   AAH21418 standard; DNA; 20 BP.
XX
AC   AAH21418;
XX
DT   18-SEP-2001  (first entry)
XX
DE   C. lanceolata KASIII primer Clprae-5.
XX
KW   KASIII; beta-ketoacyl-ACP (acyl carrier protein)-synthase III; biofuel;
KW   feedback inhibition; medium-chain fatty acid; acyl-ACP; plant;
KW   oilseed crop; microorganism; long chain fatty acid; nutrition; cosmetic;
KW   cleaning composition; detergent; dye additive; lubricant; processing aid;
KW   emulsifier; hydraulic fluid; carrier; pharmaceutical; primer; ss.
XX
OS   Cuphea lanceolata.
XX
PN   WO200151647-A2.
XX
PD   19-JUL-2001.
XX
PF   11-JAN-2001; 2001WO-EP000289.
XX
PR   12-JAN-2000; 2000DE-01000978.
XX
PA   (GVSE-) GVS GES ERWERB & VERW VON SCHUTZRE.
XX
PI   Spener F,  Abbadi A,  Brummel M;
XX
DR   WPI; 2001-442152/47.
XX
PT   New DNA encoding plant beta-ketoacyl-acyl-carrier protein synthase III,
PT   useful for making transgenic plants and microorganisms with increased
PT   production of short- or medium-chain fatty acids.
XX
PS   Example 5; Page 40; 65pp; German.
XX
CC   This invention describes a novel DNA sequence (I) that encodes a protein
CC   (II) with the enzymatic activity of a beta-ketoacyl-ACP (acyl carrier
CC   protein)-synthase III (KAS III) from Brassica napus or Cuphea lanceolata.
CC   KAS III has different binding sites for inhibitory acyl-ACP and for
CC   substrate ACPs, so mutating the former abolishes its regulatory function
CC   (feedback inhibition by medium-chain fatty acids (FA)), resulting in
CC   uninhibited synthesis of acyl-ACPs that inhibit the enzymes involved in
CC   synthesis of medium- and long-chain FA. (I) are used to produce plants
CC   (particularly oilseed crops) and microorganisms with increased contents
CC   of fatty acids of short- or medium-chain length (4-10 C). These FA, and
CC   oils containing them, are used in nutrition; cosmetics; cleaning
CC   compositions; also as detergents, dye additives, lubricants, processing
CC   aids, emulsifiers, hydraulic fluids, as carriers in pharmaceutical and
CC   cosmetic compositions, also possibly as biofuels. This sequence
CC   represents a primer used in the preparation of the KASIII proteins
CC   described in the method of the invention
XX
SQ   Sequence 20 BP; 3 A; 2 C; 8 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        137 TGGCGACTGTTTTGGGG 153
              |||||| || |||||||
Db          2 TGGCGAATGCTTTGGGG 18
```

RESULT 4671
AAS00481/c
ID AAS00481 standard; DNA; 20 BP.
XX
AC AAS00481;
XX
DT 16-MAY-2001 (first entry)
XX
DE Human FIRE cDNA PCR primer #1 derived from the mouse FIRE sequence.
XX
KW Mouse; dendritic cell membrane protein; FIRE; EGF/TM7 super family;
KW antigen presenting cell; APC; immune response; autoimmune disorder;
KW allergy; PCR primer; human; ss.
XX
OS Mus musculus.
OS Homo sapiens.
XX
PN WO200118047-A1.
XX
PD 15-MAR-2001.
XX
PF 11-SEP-2000; 2000WO-AU001083.
XX
PR 09-SEP-1999; 99AU-00002728.
XX
PA (COUN-) COUNCIL QUEENSLAND INST MEDICAL RES.
XX
PI Caminschi I, Vandenabeele SA, Wright MD, Shortman KD;
XX
DR WPI; 2001-235190/24.
XX
PT Novel FIRE protein, a member of EPG/TM7 super family, useful as markers
PT of subgroups of dendritic cells, antigen presenting cells or their
PT precursors.
XX
PS Disclosure; Page 23; 66pp; English.
XX
CC The present sequence for PCR primer #1 is used with PCR primer #2
CC (AAS00482) to amplify human FIRE cDNA. The primer sequences are derived
CC from the translated region of the mouse FIRE sequence. Analyses of FIRE,
CC a novel dendritic cell membrane protein, show that it is a novel member
CC of the EGF/TM7 super family. FIRE is predicted to contain 2 EGF domains
CC in its extracellular region and a "hinge" structure containing a number
CC of putative glycosylation sites. Dendritic cells which are antigen
CC presenting cells (APCs) are involved in the initiation of immune
CC responses. FIRE polypeptides and polynucleotides encoding FIRE are useful
CC as markers of subgroups of dendritic cells and APCs, or their precursors.
CC FIRE encoding polynucleotides are also useful as a tool to analyse the
CC properties and functions of the FIRE gene or protein, and to generate
CC animal models. They are also useful to isolate FIRE gene regulatory
CC regions which are useful to selectively express an exogenous gene in
CC dendritic or APCs, and to isolate dendritic cells, dendritic cell
CC precursors and other APCs from biological samples. A ligand interactive
CC with the FIRE polypeptide is useful for modulating an immune response in
CC a subject, such that the ligand binds to and inhibits the function of
CC APC. Ligands of FIRE may also be used in the treatment of allergies and
CC autoimmune disorders. Such a ligand is also useful to target molecules
CC such as vaccine components to dendritic cells or APCs
XX
SQ Sequence 20 BP; 3 A; 9 C; 2 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 684 AGATGGACGAGGTGCAG 700
||||||| ||| |||||
Db 20 AGATGGAAGAGCTGCAG 4

RESULT 4672
AAH56777
ID AAH56777 standard; DNA; 20 BP.
XX
AC AAH56777;
XX
DT 06-SEP-2001 (first entry)
XX
DE S. aureus groE operon antisense oligonucleotide SEQ ID NO:425.
XX
KW Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW antibacterial; antiviral; antiproliferative; antisense therapy;
KW microbial infection; ss.
XX
OS Staphylococcus aureus.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA001347.
XX
PR 18-NOV-1999; 99US-0166249P.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT gene of microorganism, which hybridize with and inhibit expression of the
PT genes, useful to inhibit growth of microorganism having the genes.
XX
PS Claim 3; Page 53; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or GS
CC of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC antiproliferative activities, and can be used in antisense therapy and
CC for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL or
CC GS gene and administering (I) such that the growth of microorganism is
CC inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention
XX
SQ Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2176 TTTTTTTTTTAACTTT 2192
||||| |||| ||||||
Db 1 TTTTTATTTTCAACTTT 17

```
RESULT 4673
AAF99014
ID   AAF99014 standard; DNA; 20 BP.
XX
AC   AAF99014;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #130.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 41; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db          2 CGGCCGGCCGGCCGGCC 18


RESULT 4674
AAF99014/c
ID   AAF99014 standard; DNA; 20 BP.
XX
AC   AAF99014;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #130.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 41; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4675
AAS43136/c
ID   AAS43136 standard; DNA; 20 BP.
XX
AC   AAS43136;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Human ERbeta gene, ER2, 5' splice donor, exon -2.
XX
KW   Human; Oestrogen receptor beta; ERbeta; ds; SNP; chromosome 6q.25.1;
KW   single nucleotide polymorphism; cardiovascular disease; 5' splice donor;
KW   autoimmune disease; systemic lupus erythematosus; arthritis; rheumatism;
KW   osteoarthritis; osteoporosis; breast cancer; endometrial cancer.
XX
OS   Homo sapiens.
```

XX
PN WO200162793-A2.
XX
PD 30-AUG-2001.
XX
PF 20-FEB-2001; 2001WO-US005360.
XX
PR 22-FEB-2000; 2000US-0183755P.
PR 24-JAN-2001; 2001US-00768185.
XX
PA (PEKE) PE CORP NY.
XX
PI Kalush F, Cassel MJ, Hwang SS, Winn-Deen ES;
XX
DR WPI; 2001-582041/65.
XX
PT Estrogen receptor gene and protein polymorphisms useful for diagnosis of
PT individuals at risk of developing bone disorders.
XX
PS Example 2; Page 56; 245pp; English.
XX
CC The invention relates to a novel isolated peptide comprising or
CC consisting of an amino acid sequence selected from an amino acid sequence
CC of a variant oestrogen receptor protein (e.g. ERbeta), or a fragment of
CC 10 amino acids), antibodies against them, nucleic acids encoding them
CC (including vectors for transforming cells). The gene for human ERbeta is
CC located on chromosome 6q.25.1. The variants are encoded by single
CC nucleotide polymorphisms (SNP). The variant peptides and proteins can be
CC used in assays to determine the biological activity of the protein, to
CC raise antibodies, as a reagent in assays designed to quantitatively
CC determine levels of the protein in biological fluids, to identify
CC compounds that modulate receptor activity and to screen compounds for the
CC ability to stimulate or inhibit interaction between the receptor protein
CC and a target molecule that normally interacts with the receptor protein
CC e.g. oestrogen. The antibody can be used to isolate the protein, to
CC assess expression in disease states e.g. cardiovascular disease and
CC autoimmune disease (e.g. systemic lupus erythematosus, arthritis,
CC rheumatism and osteoarthritis), osteoporosis, breast cancer and
CC endometrial cancer. In addition the antibodies can be used in
CC pharmacogenomic analysis and inhibiting protein function, e.g. blocking
CC the binding of the oestrogen receptor protein to a binding partner such
CC as a ligand. The nucleic acids encoding the proteins can be used as
CC probes, primers, chemical intermediates and in biological assays. The
CC present sequence is a 5' splice donor site from the human ERbeta gene
XX
SQ Sequence 20 BP; 2 A; 3 C; 4 G; 11 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1481 AACAAAACCCTGGAGAA 1497
||||||||||||| | ||
Db 19 AACAAAACCCTGTAAAA 3

RESULT 4676
AAH39349
ID AAH39349 standard; DNA; 20 BP.
XX
AC AAH39349;
XX
DT 14-AUG-2001 (first entry)
XX
DE SNP specific upper PCR primer SEQ ID 2145.
XX
KW Single nucleotide polymorphism; SNP; single nucleotide primer extension;
KW SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer;
KW Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia;
KW polycystic kidney disease; osteogenesis imperfecta; autoimmune disease;
KW acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis;
KW inflammation; forensic investigation; paternity analysis; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200129262-A2.
XX
PD 26-APR-2001.
XX
PF 13-OCT-2000; 2000WO-US028436.
XX
PR 15-OCT-1999; 99US-0160096P.
XX
PA (ORCH-) ORCHID BIOSCIENCES INC.
XX
PI Picoult-Newburg L, Pohl M;
XX
DR WPI; 2001-290930/30.
XX
PT New genotyping oligonucleotide, useful for detecting the presence,
PT absence or identity of single polynucleotide polymorphism in a nucleic
PT acid sample.
XX
PS Claim 1; Page 60; 83pp; English.
XX
CC Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide
CC primer extension (SNPE) primers, and the sequences of regions flanking
CC sites of single nucleotide polymorphisms SNPs. The present invention
CC includes kits for determining the presence or absence of a SNP, using the
CC oligonucleotides of the invention. The PCR primers are used to amplify a
CC SNP flanking sequence, the SNPE primer is used as a genotyping primer.
CC The oligonucleotides are useful for genotyping a nucleic acid sample by
CC performing a single-nucleotide primer extension reaction. The
CC oligonucleotides are useful for determining the presence, absence or
CC identity of a SNP and for genotyping nucleic acid samples, for e.g. to
CC assess by association analysis the genotype of an individual or group of
CC individuals, having a pathological phenotypic trait suspected of being
CC caused by one or more SNPs. Phenotypic traits include diseases e.g.
CC agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular
CC dystrophy, familial hypercholesterolaemia, polycystic kidney disease,
CC osteogenesis imperfecta and acute intermittent porphyria. Phenotypic
CC traits also include symptoms of or susceptibility to multifactorial
CC disease of which a component is or may be genetic such as autoimmune
CC diseases, including, rheumatoid arthritis, multiple sclerosis,
CC inflammation, cancer, nervous system diseases and infection by pathogenic
CC microorganism. The method is also useful in forensic investigations and
CC paternity analysis. The present sequence represents a PCR primer specific
CC for a human SNP containing DNA sequence
XX
SQ Sequence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1442 TCCTACATGAACCCTGG 1458
||||| |||| ||||||
Db 1 TCCTAGATGACCCCTGG 17

RESULT 4677
AAH40269/c
ID AAH40269 standard; DNA; 20 BP.
XX
AC AAH40269;
XX
DT 14-AUG-2001 (first entry)
XX
DE SNP specific upper PCR primer SEQ ID 3065.
XX
KW Single nucleotide polymorphism; SNP; single nucleotide primer extension;
KW SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer;
KW Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia;
KW polycystic kidney disease; osteogenesis imperfecta; autoimmune disease;
KW acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis;
KW inflammation; forensic investigation; paternity analysis; PCR primer; ss.

```
XX
OS   Homo sapiens.
XX
PN   WO200129262-A2.
XX
PD   26-APR-2001.
XX
PF   13-OCT-2000; 2000WO-US028436.
XX
PR   15-OCT-1999;   99US-0160096P.
XX
PA   (ORCH-) ORCHID BIOSCIENCES INC.
XX
PI   Picoult-Newburg L,  Pohl M;
XX
DR   WPI; 2001-290930/30.
XX
PT   New genotyping oligonucleotide, useful for detecting the presence,
PT   absence or identity of single polynucleotide polymorphism in a nucleic
PT   acid sample.
XX
PS   Claim 1; Page 65; 83pp; English.
XX
CC   Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide
CC   primer extension (SNPE) primers, and the sequences of regions flanking
CC   sites of single nucleotide polymorphisms SNPs. The present invention
CC   includes kits for determining the presence or absence of a SNP, using the
CC   oligonucleotides of the invention. The PCR primers are used to amplify a
CC   SNP flanking sequence, the SNPE primer is used as a genotyping primer.
CC   The oligonucleotides are useful for genotyping a nucleic acid sample by
CC   performing a single-nucleotide primer extension reaction. The
CC   oligonucleotides are useful for determining the presence, absence or
CC   identity of a SNP and for genotyping nucleic acid samples, for e.g. to
CC   assess by association analysis the genotype of an individual or group of
CC   individuals, having a pathological phenotypic trait suspected of being
CC   caused by one or more SNPs. Phenotypic traits include diseases e.g.
CC   agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular
CC   dystrophy, familial hypercholesterolaemia, polycystic kidney disease,
CC   osteogenesis imperfecta and acute intermittent porphyria. Phenotypic
CC   traits also include symptoms of or susceptibility to multifactorial
CC   disease of which a component is or may be genetic such as autoimmune
CC   diseases, including, rheumatoid arthritis, multiple sclerosis,
CC   inflammation, cancer, nervous system diseases and infection by pathogenic
CC   microorganism. The method is also useful in forensic investigations and
CC   paternity analysis. The present sequence represents a PCR primer specific
CC   for a human SNP containing DNA sequence
XX
SQ   Sequence 20 BP; 4 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        898 GGCTGAAGTACAGAGGC 914
              ||||| ||||||| |||
Db         20 GGCTGGAGTACAGTGGC 4


RESULT 4678
AAA54439/c
ID   AAA54439 standard; cDNA; 20 BP.
XX
AC   AAA54439;
XX
DT   11-APR-2001  (first entry)
XX
DE   Primer for amplifying 11-cis retinol dehydrogenase (RDH5).
XX
KW   11-cis retinol dehydrogenase; RDH5; eye; mutant; mutation;
KW   ocular disease; fundus albipunctatus; retinitis punctata albescens;
KW   albipunctate dystrophy; retinitis pigmentosa; human; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200068364-A2.
XX
PD   16-NOV-2000.
XX
PF   08-MAY-2000; 2000WO-US012527.
XX
PR   06-MAY-1999;   99US-00306538.
XX
PA   (LUDW-) LUDWIG INST CANCER RES.
PA   (HARD ) HARVARD COLLEGE.
PA   (MASS-) MASSACHUSETTS EYE & EAR INFIRMARY.
XX
PI   Simon A,  Eriksson U,  Dryja TP,  Berson EL,  Yamamoto H;
XX
DR   WPI; 2001-016091/02.
XX
PT   Mutations in nucleic acid molecules encoding 11-cis retinol dehydrogenase
PT   correlated to ocular disorders, useful in diagnosis and treatment of
PT   diseases such as fundus albipunctatus.
XX
PS   Example 1; Page 7; 28pp; English.
XX
CC   A new protein is described which comprises the 318 residue amino acid
CC   sequence corresponding to wild type retinol dehydrogenase (RDH5), but
CC   where amino acid 238 is not Gly, amino acid 73 is not Ser, or amino acid
CC   33 is not Ile. This mutant RDH5 can be used in the analysis of mutations
CC   in the gene encoding retinol dehydrogenase, in the diagnosis and
CC   treatment of ocular diseases associated with retinal degeneration such as
CC   fundus albipunctatus. Other disorders which may also be studied include
CC   retinitis punctata albescens, albipunctate dystrophy and retinitis
CC   pigmentosa. A number of primer pairs (See GENESEQ records AAA54433-
CC   A54448) were used to amplify the genomic RDH5 DNA. Two primers (AAA54439,
CC   AAA54440) were used to amplify exon 3a of the RDH5 gene. This primer
CC   corresponds to nucleotides 2848-2867 of the genomic DNA sequence (See
CC   GENESEQ record AAA54431)
XX
SQ   Sequence 20 BP; 3 A; 9 C; 1 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2549 ATTAAGAGGATGCTGGG 2565
              || || ||||||||||||
Db         18 ATGAAAAGGATGCTGGG 2


RESULT 4679
AAD09639
ID   AAD09639 standard; DNA; 20 BP.
XX
AC   AAD09639;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human PKA C-alpha chimeric antisense oligonucleotide (ISIS# 102604).
XX
KW   Human; protein kinase A; PKA catalytic subunit C-alpha inhibitor;
KW   therapy; infection; inflammation; tumour; prophylaxis; antisense;
KW   phosphorothioate backbone; chimeric; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
```

```
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   2
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   4
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   misc_feature    6. .15
FT                   /*tag=  e
FT                   /note= "Central gap region"
FT   modified_base   16. .20
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   16. .17
FT                   /*tag=  g
FT                   /mod_base= m5c
XX
PN   US6248586-B1.
XX
PD   19-JUN-2001.
XX
PF   17-DEC-1999;   99US-00467082.
XX
PR   17-DEC-1999;   99US-00467082.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-407321/43.
XX
PT   Antisense oligonucleotides for inhibiting the expression of the human
PT   protein kinase A catalytic subunit C-alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 44; 35pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding human protein
CC   kinase A (PKA) catalytic subunit C-alpha to modulate (inhibit) its
CC   expression. The antisense compounds are useful for diagnostics,
CC   therapeutics, prophylaxis and as research reagents or kits. The antisense
CC   oligonucleotides are useful for treating human, suspected of having or
CC   being prone to a disease or condition associated with the expression of
CC   PKA catalytic subunit C-alpha. In particular, the antisense
CC   oligonucleotides are useful for preventing, delaying or treating
CC   infection, inflammation and tumour formation. They are also useful in
CC   antisense therapy. The present sequence is a chimeric antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to the start codon of human PKA catalytic subunit C-alpha to inhibit its
CC   expression
XX
SQ   Sequence 20 BP; 0 A; 7 C; 12 G; 1 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         50 CGCGGCGGGGGCGGCGG 66
              ||||||||  ||||||  |
Db          2 CGCGGCGGCGGCGGCCG 18


RESULT 4680
AAD09640
ID   AAD09640 standard; DNA; 20 BP.
XX
AC   AAD09640;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human PKA C-alpha chimeric antisense oligonucleotide (ISIS# 102609).
XX
KW   Human; protein kinase A; PKA catalytic subunit C-alpha inhibitor;
KW   therapy; infection; inflammation; tumour; prophylaxis; antisense;
KW   phosphorothioate backbone; chimeric; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   1
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   4
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   misc_feature    6. .15
FT                   /*tag=  e
FT                   /note= "Central gap region"
FT   modified_base   16. .20
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   18. .19
FT                   /*tag=  g
FT                   /mod_base= m5c
XX
PN   US6248586-B1.
XX
PD   19-JUN-2001.
XX
PF   17-DEC-1999;   99US-00467082.
XX
PR   17-DEC-1999;   99US-00467082.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-407321/43.
XX
PT   Antisense oligonucleotides for inhibiting the expression of the human
PT   protein kinase A catalytic subunit C-alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 44; 35pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding human protein
CC   kinase A (PKA) catalytic subunit C-alpha to modulate (inhibit) its
CC   expression. The antisense compounds are useful for diagnostics,
CC   therapeutics, prophylaxis and as research reagents or kits. The antisense
CC   oligonucleotides are useful for treating human, suspected of having or
CC   being prone to a disease or condition associated with the expression of
CC   PKA catalytic subunit C-alpha. In particular, the antisense
CC   oligonucleotides are useful for preventing, delaying or treating
CC   infection, inflammation and tumour formation. They are also useful in
CC   antisense therapy. The present sequence is a chimeric antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to the start codon of human PKA catalytic subunit C-alpha to inhibit its
CC   expression
XX
```

```
SQ   Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         50 CGCGGCGGGGGCGGCGG 66
              ||||||||  |||||| |
Db          4 CGCGGCGGCGGCGGCCG 20


RESULT 4681
AAF54613/c
ID   AAF54613 standard; DNA; 20 BP.
XX
AC   AAF54613;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 58.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 60; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 2 A; 3 C; 11 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        617 CCCCACGCACACGCCCT 633
              | |||||||||  |||||
Db         17 CTCCACGCACAGGCCCT 1


RESULT 4682
AAF54596/c
ID   AAF54596 standard; DNA; 20 BP.
XX
AC   AAF54596;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 41.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 55; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 2 A; 9 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1383 GTGCCGCGGTGTCTGCC 1399
              | ||||||||||| |||
Db         20 GAGCCGCGGTGTCCGCC 4


RESULT 4683
AAF54612/c
ID   AAF54612 standard; DNA; 20 BP.
XX
AC   AAF54612;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 57.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
```

```
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 59; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 3 A; 2 C; 12 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        617 CCCCACGCACACGCCCT 633
              | ||||||||| ||||||
Db         17 CTCCACGCACTCGCCCT 1


RESULT 4684
AAF54615/c
ID   AAF54615 standard; DNA; 20 BP.
XX
AC   AAF54615;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 60.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 60; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 2 A; 4 C; 10 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        617 CCCCACGCACACGCCCT 633
              | ||||||||| ||||||
Db         17 CTCCACGCACAGGCCCT 1


RESULT 4685
AAF54617/c
ID   AAF54617 standard; DNA; 20 BP.
XX
AC   AAF54617;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 62.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 61; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        617 CCCCACGCACACGCCCT 633
              | ||||||||| ||||||
Db         17 CTCCACGCACAGGCCCT 1


RESULT 4686
AAH40966
ID   AAH40966 standard; DNA; 20 BP.
XX
AC   AAH40966;
XX
DT   17-AUG-2001  (first entry)
XX
DE   Primer SEQ ID 14 used to sequence dioxin gene.
XX
KW   Golden hamster; dioxin receptor; dioxin like substance;
KW   sequencing primer; ss.
XX
OS   Synthetic.
XX
PN   JP2001078782-A.
```

XX
PD 27-MAR-2001.
XX
PF 27-APR-2000; 2000JP-00127243.
XX
PR 09-JUL-1999; 99JP-00196035.
XX
PA (SUMO) SUMITOMO CHEM CO LTD.
XX
DR WPI; 2001-412348/44.
XX
PT Dioxin receptor gene useful for determining a dioxin-like substance.
XX
PS Example 3; Page 21; 23pp; Japanese.
XX
CC This invention relates to a dioxin receptor gene which encodes a hamster
CC dioxin receptor, AAH40954 and AAB97388 respectively. The dioxin receptor
CC gene can be used for the determination of a dioxin-like substance.
CC Sequences AAH40959 - AAH40968 represent primers used to sequence the
CC dioxin gene of the invention
XX
SQ Sequence 20 BP; 8 A; 3 C; 5 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2243 AGGTACTGAAGCTTTAT 2259
||| ||||||||| ||||
Db 4 AGGAACTGAAGCATTAT 20

RESULT 4687
AAS12283
ID AAS12283 standard; DNA; 20 BP.
XX
AC AAS12283;
XX
DT 21-NOV-2001 (first entry)
XX
DE DNA encoding class I deoxyribozyme, DNAzyme motif #2.
XX
KW Deoxyribozyme; cytostatic; endonuclease; RNA cleavage; DNA cleavage;
KW gene therapy; plant; fungus; bacteria; mammal; ribozyme; ss.
XX
OS Synthetic.
XX
PN WO200159102-A2.
XX
PD 16-AUG-2001.
XX
PF 08-FEB-2001; 2001WO-US004223.
XX
PR 08-FEB-2000; 2000US-0181360P.
PR 31-MAR-2000; 2000US-0193646P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI Breaker R, Beigelman L, Emilsson G;
XX
DR WPI; 2001-536526/59.
XX
PT New nucleic acids with endonuclease activity, such as ribozymes and
PT nucleozymes, for modulating gene expression in a plant, mammalian,
PT bacterial or fungal cell.
XX
PS Example 1; Fig 5; 96pp; English.
XX
CC The invention relates to nucleic acid molecules with endonuclease
CC activity, which are particularly useful for cleavage of RNA or DNA. The
CC nucleic acids are used in a pharmaceutical composition and are used to
CC modulate expression of a gene in a plant, mammalian, bacterial or fungal
CC cell. They are used to cleave a separate nucleic acid, preferably RNA.
CC The nucleic acids are used to inhibit gene expression and/or cell
CC proliferation, and can be used to treat a disease or condition. More than
CC one nucleic acid can be independently targeted to the same or different
CC sites in a cell. The nucleic acids may be used to study DNA. The
CC modifications to the nucleic acids optimises their catalytic activity and
CC can maintain or enhance their activity. They exhibit a high degree of
CC specificity for RNA. The present sequence represents the coding sequence
CC of class I deoxyribozyme, DNAzyme motif #2 used in the method of the
CC invention
XX
SQ Sequence 20 BP; 9 A; 0 C; 6 G; 0 T; 5 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 64.7%; Pred. No. 4.3e+03;
Matches 11; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Qy 2537 AGGGTATTAAGAATTAA 2553
|||| :|::|| ||: ||
Db 2 AGGGUAUUAAUAAUGAA 18

RESULT 4688
AAD17451
ID AAD17451 standard; DNA; 20 BP.
XX
AC AAD17451;
XX
DT 10-DEC-2001 (first entry)
XX
DE Human TNF-alpha cDNA amplifying gene specific RT-PCR primer #1.
XX
KW Human; Tp12; serine threonine kinase; tumour necrosis factor; TNFalpha;
KW inflammatory disease; therapy; rheumatoid arthritis; endotoxin shock;
KW research tool; LPS; lipopolysaccharide; RT-PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200166559-A1.
XX
PD 13-SEP-2001.
XX
PF 08-MAR-2001; 2001WO-US007588.
XX
PR 08-MAR-2000; 2000US-00522775.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Tsichlis PN;
XX
DR WPI; 2001-582266/65.
XX
PT Knock-out animal resistant to lipopolysaccharide-induced endotoxin shock
PT and tumor necrosis factor alpha-mediated inflammatory disease, comprises
PT a functionally disrupted endogenous Tp12 gene.
XX
PS Example 7; Page 48; 98pp; English.
XX
CC The invention relates to an animal with a structurally intact Tp12 gene
CC but functionally disrupted endogenous Tp12 (a protooncogene which encodes
CC a cytoplasmic serine threonine protein kinase). The animal has increased
CC resistance to lipopolysaccharide-induced endotoxin shock or tumour
CC necrosis factor (TNF) alpha-mediated inflammatory diseases. Tp12 protein
CC and DNA are useful for identifying compounds that agonise or inhibit the
CC function of Tp12 protein. Tp12 is useful for treating rheumatoid
CC arthritis. TNFalpha-mediated inflammatory diseases or LPS induced
CC endotoxin shock, may be treated by transfecting bone marrow derived cells
CC invitro with a DNA construct which encodes sequences that interferes with
CC the expression of function of the endogenous Tp12 in the cells and
CC administering the cells to an animal. The knock out animals and the
CC constructs used to generate the animals are useful in the development of
CC compositions and methods of treating inflammation. Tp12 agonist and
CC antagonist are useful as targets for the development of novel therapeutic

```
CC   agents which eliminate the functional role of Tp12 and as research tools
CC   to facilitate the elucidation of the mechanistic action of the novel
CC   genetic and protein interactions involved in inflammatory disorders. Tp12
CC   polynucleotide sequences facilitate the discovery and development of anti
CC   endotoxin shock and/or antiinflammatory compounds. The present sequence
CC   is a reverse transcription (RT) PCR used for amplifying human TNFalpha
CC   cDNA
XX
SQ   Sequence 20 BP; 5 A; 10 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1855 CAGACCCACACACTTAG 1871
              ||||||| |||||| ||
Db          4 CAGACCCTCACACTCAG 20


RESULT 4689
AAH49468
ID   AAH49468 standard; DNA; 20 BP.
XX
AC   AAH49468;
XX
DT   11-DEC-2001  (first entry)
XX
DE   D. melanogaster peptide receptor PCR primer 21s.
XX
KW   Insect; fruitfly; peptide receptor; plant protection; insecticide;
KW   PCR primer; ss.
XX
OS   Drosophila melanogaster.
XX
PN   DE10013618-A1.
XX
PD   20-SEP-2001.
XX
PF   18-MAR-2000; 2000DE-01013618.
XX
PR   18-MAR-2000; 2000DE-01013618.
XX
PA   (FARB ) BAYER AG.
XX
PI   Antonicek H,  Friedrich G,  Schulte T;
XX
DR   WPI; 2001-571695/65.
XX
PT   New polypeptides from Drosophila melanogaster have biological activity of
PT   peptide receptor, useful to find new compounds for plant protection and
PT   insecticides.
XX
PS   Example 1; Page 8; 128pp; German.
XX
CC   This invention describes novel polypeptides (P1) from Drosophila
CC   melanogaster having the biological activity of a peptide receptor.
CC   Molecules of the invention are used to find new plant protection
CC   compounds or insecticides, or to find genes encoding a polypeptide
CC   involved in the structure of functionally similar receptors in insects
CC   This sequence represents a PCR primer used in the amplification of the
CC   genes encoding the Drosophila melanogaster (fruitfly) peptide receptor
CC   described in the method of the invention
XX
SQ   Sequence 20 BP; 3 A; 9 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        598 CCGCTCCGACCTGCTGC 614
              | ||||| |||||||||
Db          4 CAGCTCCTACCTGCTGC 20


RESULT 4690
ABK53147/c
ID   ABK53147 standard; DNA; 20 BP.
XX
AC   ABK53147;
XX
DT   29-AUG-2003  (revised)
DT   12-AUG-2002  (first entry)
XX
DE   HIV-1 Gag gene specific oligonucleotide primer #11.
XX
KW   HIV; human immunodeficiency virus; ss; primer; gag; pol; protease;
KW   reverse transcriptase; infection; PCR.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US2002055095-A1.
XX
PD   09-MAY-2002.
XX
PF   31-AUG-2001; 2001US-00944036.
XX
PR   01-SEP-2000; 2000US-0229790P.
XX
PA   (YANG/) YANG Y Y.
PA   (BREN/) BRENTANO S T.
PA   (BABO/) BABOLA O.
PA   (TRAN/) TRAN N.
PA   (VERN/) VERNET G.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-462902/49.
XX
PT   New nucleic acid oligomers for amplifying a nucleotide sequence from HIV-
PT   1 and probes for detecting the amplified product are specific for gag and
PT   pol regions and are useful to detect different subtypes of HIV-1.
XX
PS   Claim 1; Page 27; 37pp; English.
XX
CC   This invention relates to a series of nucleic acid oligomers for
CC   amplifying and detecting a nucleotide sequence of human immunodeficiency
CC   virus type 1 (HIV-1). The invention also comprises a labeled
CC   oligonucleotide that specifically hybridises to an HIV-1 sequence derived
CC   from gag or pol sequences, having one of the sequences fully defined in
CC   the specification, and a method for detecting HIV-1 in a biological
CC   sample, comprising mixing the sample with two or more of the
CC   amplification oligomers that specifically amplify at least one HIV-1
CC   target sequence within gag and a pol sequence which is a protease or
CC   reverse transcriptase sequence, amplifying the target, and detecting the
CC   amplified product. The oligonucleotides of the invention may be used to
CC   diagnose HIV-1 infection. The presents sequence represents a PCR primer
CC   used to amplify the HIV-1 Gag gene in the HIV detection method of the
CC   invention. (Updated on 29-AUG-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||| | ||
Db         20 ATTATCAGAAGGAGCCA 4


RESULT 4691
ABQ82398/c
ID   ABQ82398 standard; DNA; 20 BP.
XX
AC   ABQ82398;
XX
```

DT 17-DEC-2002 (first entry)
XX
DE Human NOV4 forward PCR primer SEQ ID NO:284.
XX
KW Human; NOVX; cytostatic; neuroprotective; anticonvulsant; cardiovascular;
KW cerebroprotective; nootropic; antidiabetic; antiinflammatory; fungicide;
KW antirheumatic; antiarthritic; immunosuppressive; antiallergic; virucide;
KW antianaemic; antibacterial; protozoacide; antihelminthic; gene therapy;
KW cancer; leukaemia; lymphoma; melanoma; neurological disorder; epilepsy;
KW stroke; ischaemic cerebrovascular disease; Alzheimer's disease; allergy;
KW Pick's disease; vesicular transport disease; cystic fibrosis; goitre;
KW diabetes mellitus; Grave's disease; gastrointestinal disorder; vaccine;
KW ulcerative colitis; gastric disorder; duodenal disorder; infection;
KW autoimmune disease; allergic reaction; autoimmune haemolytic anaemia;
KW rheumatoid arthritis; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200262999-A2.
XX
PD 15-AUG-2002.
XX
PF 31-DEC-2001; 2001WO-US049976.
XX
PR 29-DEC-2000; 2000US-0258928P.
PR 02-JAN-2001; 2001US-0259415P.
PR 04-JAN-2001; 2001US-0259785P.
PR 20-FEB-2001; 2001US-0269814P.
PR 09-MAR-2001; 2001US-0279863P.
PR 29-MAR-2001; 2001US-0279832P.
PR 29-MAR-2001; 2001US-0279833P.
PR 13-APR-2001; 2001US-0283889P.
PR 18-APR-2001; 2001US-0284447P.
PR 25-APR-2001; 2001US-0286683P.
PR 29-MAY-2001; 2001US-0294080P.
PR 16-AUG-2001; 2001US-0312915P.
PR 17-AUG-2001; 2001US-0313325P.
PR 17-SEP-2001; 2001US-0322699P.
PR 26-NOV-2001; 2001US-0333350P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Spytek KA, Li L, Wolenc AR, Vernet CAM, Eisen A, Liu X;
PI Malyankar U, Shimkets RA, Tchernev VT, Spaderna SK, Gorman L;
PI Kekuda R, Patturajan M, Gusev V, Gangolli EA, Guo X, Shenoy S;
PI Rastelli L, Casman SJ, Boldog F, Burgess CE, Edinger S, Ellerman K;
PI Gunther E, Smithson G, Millet I, Macdougall JR;
XX
DR WPI; 2002-732706/79.
XX
PT New NOVX polypeptides and polynucleotides useful for treating NOVX-
PT associated disorders, such as cancers, neurological disorders, disorders
PT of vesicular transport, gastrointestinal disorders, and autoimmune
PT diseases.
XX
PS Example 2; Page 313; 444pp; English.
XX
CC The present invention describes novel human proteins designated NOVX,
CC where X is 1 to 20 e.g. NOV1. NOVX sequences can have neuroprotective,
CC cytostatic, anticonvulsant, cerebroprotective, nootropic, cardiovascular,
CC antidiabetic, antiinflammatory, antirheumatic, antiarthritic, virucide,
CC immunosuppressive, antiallergic, antianaemic, antibacterial, fungicide,
CC protozoacide and antihelminthic activities, and can be used in gene
CC therapy. The NOVX proteins, nucleotides or antibodies can be used in the
CC manufacture of a medicament for treating a syndrome associated with a
CC human disease selected from NOVX-associated disorder, such as cancers
CC (e.g. leukaemia, lymphoma, melanoma or cancer of the liver, lung, muscle,
CC ovary, testis and uterus), neurological disorders (e.g. epilepsy, stroke,
CC ischaemic cerebrovascular disease, Alzheimer's disease or Pick's
CC disease), disorders of vesicular transport (e.g. cystic fibrosis,
CC diabetes mellitus, Grave's disease, or goitre), gastrointestinal
CC disorders (e.g. ulcerative colitis, or gastric and duodenal disorders),
CC autoimmune diseases (e.g. allergic reactions, autoimmune haemolytic
CC anaemia, or rheumatoid arthritis), viral, bacterial, fungal, helminthic
CC and protozoal infections. The NOVX proteins can be used as immunogens to
CC produce antibodies and as vaccines. The NOVX nucleotide sequences may be
CC used in chromosome mapping, identifying individuals from minute
CC biological samples (tissue typing), and in forensic identification of a
CC biological sample. The present sequence represents a PCR primer for a
CC human NOVX protein, which is used in an example from the present
CC invention
XX
SQ Sequence 20 BP; 6 A; 7 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1123 TGTCTGTGAAGCCGAAT 1139
|||||||||| ||||
Db 20 TCTCTGTGAAGCTGAAT 4

RESULT 4692
ABK13157
ID ABK13157 standard; DNA; 20 BP.
XX
AC ABK13157;
XX
DT 07-AUG-2003 (revised)
DT 23-APR-2002 (first entry)
XX
DE En8183 EN transposon specific PCR primer.
XX
KW Short-root; SHR; cell cell division regulator; gravitropism;
KW root organisation; antibody; immunogen; transgenic plant; En8183;
KW lodging; PCR; primer; transposon; Maize; ss.
XX
OS Zea mays.
XX
PN WO200190314-A1.
XX
PD 29-NOV-2001.
XX
PF 24-MAY-2001; 2001WO-US017273.
XX
PR 24-MAY-2000; 2000US-00578827.
XX
PA (UYNY) UNIV NEW YORK STATE.
XX
PI Benfey PN, Helariutta Y, Fukaki H, Nakajima K;
XX
DR WPI; 2002-147582/19.
XX
PT New SHORT-ROOT genes, useful for improving agronomically valuable plants,
PT particularly for altering or regulating the root and/or stem structure of
PT transgenic plants to produce plants that are less susceptible to lodging.
XX
PS Example 6.14; Page 68; 142pp; English.
XX
CC This invention relates to the nucleic acid and protein sequence of a
CC novel gene Short-root (SHR). SHR is expressed mainly in roots and
CC controls cell cell division of certain types of roots affecting
CC gravitropism and the organisation of root and stem. The invention also
CC comprises an antibody that immunospecifically binds the SHR protein and
CC plants genetically-engineered to overexpress or underexpress a SHR
CC protein or polypeptide, so that cell division is modified, and root
CC and/or stem development is altered. The SHR genes are useful for
CC improving agronomically valuable plants. The SHR genes are particularly
CC useful for altering or regulating the root and/or stem structure, and the
CC gravitropism of aerial structures of transgenic plants. The genes are
CC also useful for developing straighter transgenic plants that are less
CC susceptible to lodging. The present sequence represents the En8183 maize
CC transposon En-specific PCR primer, this primer was used in conjunction
CC with the primer En7631 (ABK14156) to generate an En-specific probe to
CC allcw genotyping of progeny from an Shr3 heterozygote. Shr-3 and Shr-4

```
CC   alleles were identified in lines containing the autonomously replicating
CC   maize transposon En. (Updated on 07-AUG-2003 to correct OS field.)
XX
SQ   Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1857 GACCCACACACTTAGCC 1873
              |||| |||| |||||||
Db          4 GACCGACACTCTTAGCC 20


RESULT 4693
ABK11174
ID   ABK11174 standard; DNA; 20 BP.
XX
AC   ABK11174;
XX
DT   05-JUN-2002  (first entry)
XX
DE   PCR primer #1 for target DNA sequence #2.
XX
KW   Method for producing DNA; PCR; DNA production; target DNA; primer; ss.
XX
OS   Synthetic.
XX
PN   EP1180547-A2.
XX
PD   20-FEB-2002.
XX
PF   25-JUL-2001; 2001EP-00306385.
XX
PR   28-JUL-2000; 2000JP-00229284.
XX
PA   (NISN ) NISSHINBO IND INC.
XX
PI   Aotsuka S;
XX
DR   WPI; 2002-229955/29.
XX
PT   Producing DNA, comprises using an oligomer having the Nth partial
PT   sequence or an oligomer complementary to the (N+1)th partial sequence
PT   from the 5' end of the target sequence as PCR primers and templates.
XX
PS   Example 2; Page 42; 46pp; English.
XX
CC   The present invention relates to a method for producing DNA. The method
CC   comprises performing PCR using an oligomer having the Nth partial
CC   sequence from the 5' end of a target sequence and an oligomer having a
CC   nucleotide sequence complementary to the (N+1)th partial sequence from
CC   the 5' end of the target sequence, as primers and templates. The method
CC   is useful for producing DNA having an arbitrary sequence, or having a
CC   length several times larger than the maximum length that can be produced
CC   by the chemical synthesis method, and since restriction enzyme treatment
CC   is not essential during production, the limitation imposed on producible
CC   DNA sequence is ameliorated. Also since a cloning step is not included as
CC   an intermediate step, and because lengths of the reaction products are
CC   approximately doubled in each step, it becomes easy to select the final
CC   product. Based on these factors, the method is more rapid and more
CC   efficient in DNA production compared to previous methods. The present
CC   sequence represents a PCR primer used in the methods of the present
CC   invention
XX
SQ   Sequence 20 BP; 10 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2120 TTAGGAAACTTGTAGAA 2136
              ||| ||||| |||||||
Db          2 TTAAGAAACATGTAGAA 18


RESULT 4694
AAD46658
ID   AAD46658 standard; DNA; 20 BP.
XX
AC   AAD46658;
XX
DT   27-JAN-2003  (first entry)
XX
DE   Human ABCC11 exon25/intron25 junction site.
XX
KW   ABCC11 protein; paroxysmal kinesigenic choreoathetosis; inflammation;
KW   cholesterol transport; gene therapy; human; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   exon            1. .10
FT                   /*tag=  a
FT                   /number= 1
FT                   /note= "partial"
FT   intron          11. .20
FT                   /*tag=  b
FT                   /number= 1
FT                   /note= "partial"
XX
PN   WO200272632-A2.
XX
PD   19-SEP-2002.
XX
PF   05-MAR-2002; 2002WO-EP003241.
XX
PR   05-MAR-2001; 2001US-0272757P.
XX
PA   (AVET ) AVENTIS PHARMA SA.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Rosier-Montus M,  Prades C,  Arnould-Reguigne I,  Dean M;
PI   Allikmets R,  Denefle P;
XX
DR   WPI; 2002-723321/78.
XX
PT   New ABCC11 nucleic acids and proteins, useful in manufacturing a
PT   medicament for treating and/or preventing paroxysmal kinesigenic
PT   choreoathetosis, or pathologies linked to the transport of lipophilic
PT   substances.
XX
PS   Disclosure; Page 43; 118pp; English.
XX
CC   The invention relates to novel ABCC11 nucleic acids and proteins. ABCC11
CC   sequences are used in the manufacture of a medicament for treating and/or
CC   preventing subjects affected by paroxysmal kinesigenic choreoathetosis.
CC   They may be used for treating or preventing subjects affected by a
CC   dysfunction of the transport of anionic drugs such as methotrexate,
CC   neutral drugs conjugated to acidic ligands such as GSH, glucuronate, or
CC   sulphate conjugated drugs. Compositions comprising the ABCC11 polypeptide
CC   may also be used in the treatment and/or prevention of a deficiency in
CC   the transport of cholesterol or inflammatory lipid substances and
CC   diseases mapped on the chromosome locus 16q12. ABCC11 protein can be used
CC   to treat pathologies linked to the transport of lipophilic substances.
CC   The invention is used in gene therapy. The present sequence is human
CC   ABCC11 exon/intron junction site
XX
SQ   Sequence 20 BP; 5 A; 5 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2648 GAACCCTAAGGTGAGTG 2664
              ||||| | |||||||||
```

```
Db          1 GAACCATCAGGTGAGTG 17


RESULT 4695
ABN74918
ID   ABN74918 standard; DNA; 20 BP.
XX
AC   ABN74918;
XX
DT   26-JUL-2002  (first entry)
XX
DE   Mouse caspase 2 antisense inhibitor oligonucleotide #31.
XX
KW   Caspase 2; antisense; cytostatic; osteopathic; cerebroprotective;
KW   neuroprotective; antilipemic; antiinflammatory; antimicrobial;
KW   haematopoietic disorder; bone metabolism disorder; cholesterol disorder;
KW   hyperproliferative disorder; cancer; blood disorder; stroke;
KW   brain injury; neurodegenerative disease; infection; inflammation; tumour;
KW   ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag= a
FT                    /mod_base= m5c, OTHER
FT                    /note= "Nucleotides 1-5 and 16-20 are five-nucleotide
FT                    wings consisting 2'methoxyethyl (2'-MOE) nucleotides, 6-
FT                    15 are 2'deoxynucleotides, backbone linkages are
FT                    phosphodiester, all cytosines are 5-methylcytidines"
XX
PN   WO200224720-A1.
XX
PD   28-MAR-2002.
XX
PF   14-SEP-2001; 2001WO-US028631.
XX
PR   20-SEP-2000; 2000US-00667018.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Zhang H,  Watt AT;
XX
DR   WPI; 2002-351998/38.
XX
PT   New antisense compounds targeted to nucleic acid molecule encoding
PT   caspase 2, useful for treating diseases or conditions associated with
PT   caspase 2, e.g. cancer, blood disorders, stroke, brain injury and
PT   neurodegenerative diseases.
XX
PS   Example 16; Page 102; 146pp; English.
XX
CC   The invention relates to a compound 8-50 nucleobases in length targeted
CC   to a nucleic acid molecule encoding caspase 2, which specifically
CC   hybridises with and inhibits the expression of caspase 2, or specifically
CC   hybridises with at least an 8-nucleobase portion of an active site on a
CC   nucleic acid molecule encoding caspase 2. The activity of antisense
CC   oligonucleotides of the invention may be described as, cytostatic,
CC   osteopathic, cerebroprotective, neuroprotective, antilipemic,
CC   antiinflammatory and antimicrobial. The antisense compounds are useful
CC   for treating an animal having a disease or condition associated with
CC   caspase 2, such as haematopoietic disorder, bone metabolism disorder,
CC   cholesterol disorder, or a hyperproliferative disorder. These compounds
CC   may further be used as research reagents and diagnostics, to distinguish
CC   between functions of various members of a biological pathway, in the
CC   treatment of a disease or disorder which can be treated by modulating the
CC   expression of caspase 2, including cancer, blood disorders, stroke, brain
CC   injury and neurodegenerative diseases. They may also be used for
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Records ABN74810-ABN74952 represent caspase 2 mRNA inhibitor
CC   oligonucleotides
XX
SQ   Sequence 20 BP; 5 A; 9 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1062 TGACTCTCCTGACATCC 1078
              | |||||||| ||||||
Db          2 TCACTCTCCTCACATCC 18


RESULT 4696
ABS52754
ID   ABS52754 standard; DNA; 20 BP.
XX
AC   ABS52754;
XX
DT   15-NOV-2002  (first entry)
XX
DE   Ferrocene-type polycyclic hydrocarbon derivative related DNA #1.
XX
KW   Ferrocene-type polycyclic hydrocarbon derivative; ss; human;
KW   gene therapy; ferrocene-type naphthalenediimide derivative.
XX
OS   Homo sapiens.
XX
PN   WO200253571-A1.
XX
PD   11-JUL-2002.
XX
PF   28-DEC-2001; 2001WO-JP011653.
XX
PR   28-DEC-2000; 2000JP-00402076.
XX
PA   (TUMG-) TUM GENE INC.
PA   (TAKE/) TAKENAKA S.
XX
PI   Takenaka S,  Takamiya H,  Takagi M;
XX
DR   WPI; 2002-636495/68.
XX
PT   Ferrocene-type polycyclic hydrocarbon derivatives including ferrocene-
PT   type naphthalenediimide derivatives, useful in gene diagnosis and
PT   therapy.
XX
PS   Disclosure; Page 18; 45pp; Japanese.
XX
CC   The invention relates to ferrocene-type polycyclic hydrocarbon
CC   derivatives and also ferrocene-type naphthalenediimide derivatives. The
CC   compounds are applicable as intercalators for nucleic acid bases to be
CC   used in gene diagnosis and therapy. Such compounds can be easily
CC   separated and purified after completion of their synthesis. This sequence
CC   represents a ferrocene-type polycyclic hydrocarbon derivative related
CC   oligonucleotide
XX
SQ   Sequence 20 BP; 3 A; 6 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        219 GCCACGACGGGAGCAGC 235
              ||||||  |||||||||
Db          2 GCCACGGGGGGAGCAGC 18


RESULT 4697
ABS52755/c
ID   ABS52755 standard; DNA; 20 BP.
XX
AC   ABS52755;
XX
DT   15-NOV-2002  (first entry)
XX
```

```
DE   Ferrocene-type polycyclic hydrocarbon derivative related DNA #2.
XX
KW   Ferrocene-type polycyclic hydrocarbon derivative; ss; human;
KW   gene therapy; ferrocene-type naphthalenediimide derivative.
XX
OS   Homo sapiens.
XX
PN   WO200253571-A1.
XX
PD   11-JUL-2002.
XX
PF   28-DEC-2001; 2001WO-JP011653.
XX
PR   28-DEC-2000; 2000JP-00402076.
XX
PA   (TUMG-) TUM GENE INC.
PA   (TAKE/) TAKENAKA S.
XX
PI   Takenaka S,  Takamiya H,  Takagi M;
XX
DR   WPI; 2002-636495/68.
XX
PT   Ferrocene-type polycyclic hydrocarbon derivatives including ferrocene-
PT   type naphthalenediimide derivatives, useful in gene diagnosis and
PT   therapy.
XX
PS   Disclosure; Page 18; 45pp; Japanese.
XX
CC   The invention relates to ferrocene-type polycyclic hydrocarbon
CC   derivatives and also ferrocene-type naphthalenediimide derivatives. The
CC   compounds are applicable as intercalators for nucleic acid bases to be
CC   used in gene diagnosis and therapy. Such compounds can be easily
CC   separated and purified after completion of their synthesis. This sequence
CC   represents a ferrocene-type polycyclic hydrocarbon derivative related
CC   oligonucleotide
XX
SQ   Sequence 20 BP; 1 A; 10 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        219 GCCACGACGGGAGCAGC 235
              ||||||  |||||||||
Db         19 GCCACGGGGGGAGCAGC 3


RESULT 4698
AAS97619/c
ID   AAS97619 standard; DNA; 20 BP.
XX
AC   AAS97619;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Murine SAC1 gene-specific oligonucleotide PCR primer #224.
XX
KW   Human; mouse; SAC1; carbohydrate; sweetener; ethanol; alcoholism; ss;
KW   obesity; diabetes; transgenic embryo; body tissue; body fluid; pancreas;
KW   blood; tongue; PCR primer; anorectic; antidiabetic; gene therapy;
KW   protein replacement therapy.
XX
OS   Mus sp.
XX
PN   WO200183749-A2.
XX
PD   08-NOV-2001.
XX
PF   25-APR-2001; 2001WO-US013387.
XX
PR   28-APR-2000; 2000US-0200794P.
PR   28-JUL-2000; 2000US-0221419P.
PR   10-NOV-2000; 2000US-0247443P.
XX
PA   (WARN ) WARNER LAMBERT CO.
PA   (MONE-) MONELL CHEM SENSES CENT.
XX
PI   Bachmanov AA,  Beauchamp GK,  Chatterjee A,  De Jong PJ,  Li S,  Li X;
PI   Ohmen JD,  Reed DR,  Ross D,  Tordoff MG;
XX
DR   WPI; 2002-075162/10.
XX
PT   Novel isolated polypeptide comprising variant form of mouse or human SAC1
PT   polypeptide, and is associated with altered preference for carbohydrates
PT   or other sweeteners, useful for preventing obesity, diabetes, alcoholism.
XX
PS   Claim 14; Page 82; 239pp; English.
XX
CC   The invention relates to an isolated polypeptide, comprising a variant
CC   form of mouse or human SAC1 polypeptide. The variant form is associated
CC   with altered preference for carbohydrates, other sweeteners or ethanol.
CC   The polypeptide and its associated DNA sequence can be produced by
CC   recombinant techniques and is useful for preventing obesity, diabetes or
CC   alcoholism associated with SAC1 expression. The sequences are useful in
CC   screening for drugs and sweeteners. Recombinant cell lines and transgenic
CC   embryos may be used in screening for and identifying agents that induce
CC   or repress function of SAC1. Predisposition to diabetes, obesity or
CC   alcoholism can be ascertained by testing any fluid or tissue of a human
CC   (such as blood, pancreas or tongue) for sequence variations of the SAC1
CC   gene. A sequence variation of the SAC1 locus may indicate a
CC   predisposition to diabetes, obesity and/or alcoholism and may provide a
CC   diagnostic mark. The polynucleotide can be detected in a biological
CC   sample by contacting the DNA with a probe to form a hybridisation complex
CC   which is then detected. The sequences represent cDNA encoding human and
CC   mouse SAC1 polypeptides and PCR primers specific for the SCA1 genes
XX
SQ   Sequence 20 BP; 3 A; 4 C; 7 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        820 GAACCCCACTGAGGTCT 836
              ||||||||| ||| |||
Db         17 GAACCCCACAGAGCTCT 1


RESULT 4699
ABN89247
ID   ABN89247 standard; DNA; 20 BP.
XX
AC   ABN89247;
XX
DT   29-AUG-2002  (first entry)
XX
DE   Human Talin antisense phosphorothioate oligonucleotide SEQ ID NO:60.
XX
KW   Human; Talin; antimicrobial; antiinflammatory; cytostatic; inhibitor;
KW   antisense gene therapy; infection; inflammation; Talin inhibitor; tumour;
KW   antisense oligonucleotide; phosphorothioate; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
```

XX
PN US6372492-B1.
XX
PD 16-APR-2002.
XX
PF 30-OCT-2000; 2000US-00702251.
XX
PR 30-OCT-2000; 2000US-00702251.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Cowsert LM;
XX
DR WPI; 2002-470102/50.
XX
PT New antisense compound useful for inhibiting expression of Talin and for
PT preventing or delaying infection, inflammation or tumor formation.
XX
PS Claim 14; Col 41; 46pp; English.
XX
CC The present invention describes an antisense compound (I), 16 to 30 bases
CC in length targeted to specific base regions of a nucleic acid encoding
CC human Talin. Also described: (a) an antisense compound up to 30 bases in
CC length which inhibits the expression of human Talin; (b) a composition
CC (II) comprising (I) or (a); and (c) inhibiting the expression of human
CC Talin in human cells or tissues comprising contacting the cells or
CC tissues in vitro with (I) or (a). (I) has antimicrobial, antiinflammatory
CC and cytostatic activities, and can be used in antisense gene therapy and
CC as a Talin expression inhibitor. (I) can be used: to inhibit the
CC expression of human Talin in human cells or tissues; to prevent or delay
CC infection, inflammation or tumour formation; and in diagnostics,
CC therapeutics, prophylaxis, and in research reagents and kits. The present
CC sequence represents a human Talin antisense chimeric phosphorothioate
CC oligonucleotide, having 2'-methoxyethyl (2'-MOE) wings of 5 nucleotides
CC at the 5' and 3' ends and a 10 nucleotide deoxy gap in the middle, which
CC is used in an example from the present invention
XX
SQ Sequence 20 BP; 4 A; 8 C; 6 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 429 ACCCCCTGCACCAGCCG 445
|| |||||||||||| |
Db 3 ACGCCCTGCACCAGCAG 19

RESULT 4700
ABS77655
ID ABS77655 standard; DNA; 20 BP.
XX
AC ABS77655;
XX
DT 13-DEC-2002 (first entry)
XX
DE Angiogenesis inhibitory oligonucleotide #139.
XX
KW Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW plaque neovascularisation; telangiectasia; haemophiliac joint;
KW angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW scleroderma; hypertrophic scar.
XX
OS Synthetic.
XX
PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;
XX
DR WPI; 2002-566690/60.
XX
PT Inhibiting angiogenesis in a subject, involves administering at least one
PT antiangiogenic nucleic acid molecule to the subject.
XX
PS Claim 2; Page 22; 276pp; English.
XX
CC The invention relates to inhibiting angiogenesis in a subject, comprising
CC administering at least one antiangiogenic nucleic acid molecule. Also
CC included is a kit comprising a first container housing the antiangiogenic
CC nucleic acids, and instructions for administering them to a subject
CC having a condition characterised by unwanted angiogenesis. The method is
CC useful for inhibiting angiogenesis associated with solid tumour growth,
CC tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC acid of the invention
XX
SQ Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 520 CGGGCGCCCGGCCGGCC 536
||| || ||||||||||
Db 2 CGGCCGGCCGGCCGGCC 18

RESULT 4701
ABS77655/c
ID ABS77655 standard; DNA; 20 BP.
XX
AC ABS77655;
XX
DT 13-DEC-2002 (first entry)
XX
DE Angiogenesis inhibitory oligonucleotide #139.
XX
KW Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW plaque neovascularisation; telangiectasia; haemophiliac joint;
KW angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW scleroderma; hypertrophic scar.
XX
OS Synthetic.
XX
PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;

```
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 22; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4702
ABT07491/c
ID   ABT07491 standard; DNA; 20 BP.
XX
AC   ABT07491;
XX
DT   14-NOV-2002  (first entry)
XX
DE   Rat protein phosphatase 2 oligo inhibitor SEQ ID No 105.
XX
KW   Cytostatic; antidiabetic; antisense therapy; aberrant insulin regulation;
KW   protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
KW   hyperproliferative disorder; diabetes; inflammation; tumour; rat; ds.
XX
OS   Rattus norvegicus.
XX
PN   WO200264737-A2.
XX
PD   22-AUG-2002.
XX
PF   31-JAN-2002; 2002WO-US002805.
XX
PR   09-FEB-2001; 2001US-00780045.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Wyatt JR;
XX
DR   WPI; 2002-657588/70.
XX
PT   New antisense oligonucleotides targeted to nucleic acid encoding Protein
PT   Phosphatase 2 catalytic subunit beta, useful for treating diseases
PT   related to Protein Phosphatase 2 catalytic subunit beta expression, such
PT   as cancer.
XX
PS   Example 16; Page 98; 137pp; English.
XX
CC   The invention relates to a novel compound 8-50 nucleotides in length
CC   targeted to a nucleic acid molecule encoding a protein phosphatase 2
CC   catalytic beta subunit, where the compound specifically hybridises with
CC   and inhibits the expression of protein phosphatase 2 catalytic beta
CC   subunits, or specifically hybridises with at least an 8-nucleotide
CC   portion of an active site on a nucleic acid molecule encoding a protein
CC   phosphatase 2 catalytic beta subunit. The antisense compounds are useful
CC   for modulating the expression of protein phosphatase 2 catalytic beta
CC   subunits and for treating diseases or conditions associated with
CC   expression of protein phosphatase 2 catalytic beta subunits, e.g.
CC   aberrant insulin regulation or diabetes or a hyperproliferative disorder,
CC   particularly cancer. The antisense compounds are also useful for
CC   diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
CC   infection, inflammation or tumour formation, as research reagents and
CC   kits, and in distinguishing between functions of various members of a
CC   biological pathway. This polynucleotide sequence represents an
CC   oligonucleotide inhibitor of rat protein phosphatase 2 catalytic beta
CC   subunit mRNA levels of the invention. NOTE: This oligonucleotide contains
CC   phosphorothioate residues and has 2'- MOE wings with a deoxy gap
XX
SQ   Sequence 20 BP; 0 A; 15 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         53 GGCGGGGGCGGCGGCAG 69
              |||||||| |||||| |
Db         20 GGCGGGGGAGGCGGCGG 4


RESULT 4703
ABL38801
ID   ABL38801 standard; DNA; 20 BP.
XX
AC   ABL38801;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 178.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 141; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
```

```
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db          2 CGGCCGGCCGGCCGGCC 18


RESULT 4704
ABL38801/c
ID   ABL38801 standard; DNA; 20 BP.
XX
AC   ABL38801;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 178.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 141; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4705
ABL59017
ID   ABL59017 standard; DNA; 20 BP.
XX
AC   ABL59017;
XX
DT   20-AUG-2002  (first entry)
XX
DE   Nucleotide sequence of a human aurora 2 kinase inhibitor sas03.
XX
KW   Aurora 2 kinase; aurora 2 kinase inhibitor; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2002095479-A.
XX
PD   02-APR-2002.
XX
PF   22-SEP-2000; 2000JP-00287928.
XX
PR   22-SEP-2000; 2000JP-00287928.
XX
PA   (TANB ) TT PHARM INC.
XX
DR   WPI; 2002-439988/47.
XX
PT   New oligonucleotide targets and inhibits human aurora 2 kinase mRNA.
XX
PS   Disclosure; Fig 1; 12pp; Japanese.
XX
CC   The present sequence represents an oligonucleotide which targets
CC   polynucleotides encoding human aurora 2 kinase. The oligonucleotide
CC   inhibits aurora 2 kinase expression. The oligonucleotide is useful in the
CC   diagnosis and treatment of cancers
XX
SQ   Sequence 20 BP; 3 A; 12 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        595 CCGCCGCTCCGACCTGC 611
              ||||| |||||||| ||
Db          3 CCGCCACTCCGACCAGC 19


RESULT 4706
ABQ92966/c
ID   ABQ92966 standard; DNA; 20 BP.
XX
AC   ABQ92966;
XX
DT   29-AUG-2003  (revised)
DT   21-OCT-2002  (first entry)
XX
DE   T. tauschii/wheat D genome microsatellite cfd49 left PCR primer.
XX
KW   Microsatellite marker; wheat; D genome; mapping; genotyping;
KW   polymorphism; phenotypic trait; QTL; quantitative trait locus;
KW   disease-associated gene; development factor; quality factor;
KW   resistance factor; wheat product; identification; detection;
KW   genetically modified wheat; PCR; primer; ss.
XX
OS   Aegilops tauschii.
OS   Triticum aestivum.
XX
```

PN EP1217079-A1.
XX
PD 26-JUN-2002.
XX
PF 22-DEC-2000; 2000EP-00403659.
XX
PR 22-DEC-2000; 2000EP-00403659.
XX
PA (INRG) INRA INST NAT RECH AGRONOMIQUE.
XX
PI Bernard M, Sourdille P, Guyomarch H;
XX
DR WPI; 2002-550410/59.
XX
PT Map of wheat D genome comprising the genome location of a microsatellite
PT marker, useful for e.g. identifying genes responsible for a desired
PT phenotypic trait, especially quantitative trait loci in wheat, and
PT diseases.
XX
PS Claim 4; Page 5; 105pp; English.
XX
CC The invention relates to a map of the bread wheat D genome comprising the
CC genome location of a microsatellite marker selected from a group of 185
CC such markers (ABQ92733-ABQ92917). The invention also encompasses the use
CC of left (ABQ92918-ABQ93102) and right (ABQ93103-ABQ93287) primers to
CC amplify and detect the microsatellite markers, and to identify genes
CC responsible for a phenotypic trait of interest in wheat. Wheat is an
CC allohexaploid species consisting of 3 diploid genomes designated A, B and
CC D, resulting from two successive intercrossings involving at least three
CC different species. The D genome is thought to have been introduced in the
CC most recent intercrossing, between the amphiploid AABB and Triticum
CC tauschii (DD), probably involving only a limited number of genotypes of
CC both species. Due to its polyploid genome, the large size of its genome,
CC and its low level of polymorphism, the genetic mapping of wheat has to
CC date been difficult. Microsatellites are tandemly repeated sequences
CC between one and six nucleotides long, and are very polymorphic in length,
CC mainly due to polymerase slippage during replication. This high degree of
CC polymorphism makes them especially suitable for the genetic mapping of
CC species which show little intraspecies polymorphism, such as wheat. In
CC addition, microsatellites are codominant, and exhibit Mendelian
CC inheritance. The 185 microsatellite markers of the invention are
CC developed from the ancestral diploid donor species Triticum tauschii and
CC map to the wheat D genome, which is less polymorphic than the A or B
CC genomes. These microsatellite markers thus help to overcome some of the
CC problems associated with the genetic mapping of wheat. The wheat D genome
CC map and the microsatellite markers and associated primers of the
CC invention are useful for identifying genes responsible for a phenotypic
CC trait of interest, most notably QTLs (quantitative trait loci). In
CC particular they may be used for analysing genes and alleles implicated in
CC disease and for identifying development factors, quality factors and
CC factors conferring resistance to pathogens and xenobiotics. The
CC microsatellite markers, and associated primers may be also be used in
CC mapping and genotyping diploid and polyploid species of Triticum,
CC particularly Aegilops, Triticum monococcum, Triticum durum, Triticum
CC aestivum, or related species; for identifying cultivars and hybrids of
CC Triticum and related species; to assess whether or not a product
CC comprises wheat or a related species; and to assess whether or not a
CC product comprises genetically modified wheat. The present sequence
CC represents a specifically claimed Triticum tauschii/wheat genome D
CC microsatellite marker left PCR primer of the invention. (Updated on 29-
CC AUG-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 3 A; 3 C; 7 G; 7 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        675 TGCCTCACCAGATGGAC 691
              ||||||||||| | ||
Db         20 TGCCTCACCAGAAGAAC 4
```

RESULT 4707
ABN99676/c
ID ABN99676 standard; DNA; 20 BP.
XX
AC ABN99676;
XX
DT 16-AUG-2002 (first entry)
XX
DE Human clusterin inhibiting antisense oligonucleotide 10.
XX
KW Human; antisense inhibition; antisense oligonucleotide; clusterin;
KW hypercholesterolaemia; cardiovascular disorder; ss;
KW hyperproliferative disorder; hyperlipidemic disorder;
KW phosphorothioate backbone; 2'-O-methoxyethyl wing.
XX
OS Homo sapiens.
XX
PN WO200222635-A1.
XX
PD 21-MAR-2002.
XX
PF 10-SEP-2001; 2001WO-US028235.
XX
PR 11-SEP-2000; 2000US-00659791.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Freier SM;
XX
DR WPI; 2002-404805/43.
XX
PT Novel antisense compound targeted to nucleic acid molecule encoding
PT clusterin, useful for treating animal having disease associated with
PT clusterin such as hyperlipidemic disorder, cardiovascular disorder.
XX
PS Claim 3; Page 83; 125pp; English.
XX
CC The invention comprises antisense oligonucleotides that are capable of
CC inhibiting expression of the human clusterin gene. The antisense
CC oligonucleotides of the invention are useful for inhibiting the
CC expression of clusterin in cells. The antisense oligonucleotides are also
CC useful for treating an animal with a disease or condition associated with
CC clusterin (e.g. hypercholesterolaemia; cardiovascular disorders;
CC hyperproliferative disorders; and hyperlipidemic disorders). The present
CC DNA sequence represents a clusterin antisense oligonucleotide of the
CC invention. NOTE: The present DNA sequence has a phosphorothioate backbone
CC and also contains 2'-O-methoxyethyl wings
XX
SQ Sequence 20 BP; 1 A; 7 C; 3 G; 9 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2545 AAGAATTAAGAGGATGC 2561
              |||||  ||||||||||
Db         19 AAGAAGAAAGAGGATGC 3
```

RESULT 4708
ABA89809/c
ID ABA89809 standard; DNA; 20 BP.
XX
AC ABA89809;
XX
DT 11-FEB-2002 (first entry)
XX
DE Human oestrogen receptor 2 exon-intron boundry 5' splice donor #5.
XX
KW Human; oestrogen receptor alpha; ESR-alpha; ER; chromosome 6; Syne-2;
KW synaptic nuclei expressed gene 2; haplotype; cytostatic; osteopathic;
KW cardiant; vasotropic; gene therapy; vaccine; cancer; osteoporosis;
KW cardiovascular disease; oestrogen receptor; ds.

XX
OS Homo sapiens.
XX
PN WO200162969-A2.
XX
PD 30-AUG-2001.
XX
PF 20-FEB-2001; 2001WO-US005358.
XX
PR 22-FEB-2000; 2000US-0183756P.
PR 20-OCT-2000; 2000US-00692414.
PR 24-JAN-2001; 2001US-00768184.
XX
PA (PEKE) PE CORP NY.
XX
PI Kalush F, Cassel MJ, Hwang SS, Winn-Deen ES;
XX
DR WPI; 2002-041152/05.
XX
PT Novel variant of estrogen receptor alpha polypeptide useful for
PT determining the biological activity of a protein for high throughput
PT screening and for raising antibodies that elicit an immune response in
PT host.
XX
PS Example; Page 56; 333pp; English.
XX
CC The present invention describes an isolated peptide (I) consisting of an
CC amino acid sequence selected from: (a) the amino acid sequence of a
CC variant of the oestrogen receptor alpha (ESR-alpha) protein in AAG68251;
CC or (b) a fragment comprising at least 10 contiguous amino acids of the
CC protein in AAG68251. (I) has cytostatic, osteopathic, cardiant and
CC vasotropic activities, and can be used in gene therapy and vaccine
CC production. (I) is useful for identifying an agent that binds to (I), by
CC contacting (I) with an agent and assaying the contacted mixture to
CC determine whether a complex is formed with the agent bound to the
CC peptide. A polynucleotide (II), encoding (I), is useful in the
CC development of diagnostics and therapies for diseases and disorders
CC mediated/modulated by an oestrogen receptor (ER). (II) is also useful in
CC gene therapy for treating cancer, osteoporosis and cardiovascular
CC diseases. The human ESR-alpha gene is located on chromosome 6. ABA89779
CC to ABA89828 represent oligonucleotides covering human ER exon-intron
CC boundaries, and ABA89829 to ABA89868 represent oligonucleotides covering
CC human synaptic nuclei expressed gene 2 exon-intron boundaries, which are
CC used in an example from the present invention
XX
SQ Sequence 20 BP; 2 A; 3 C; 4 G; 11 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1481 AACAAAACCCTGGAGAA 1497
||||||||||| | ||
Db 19 AACAAAACCCTGTAAAA 3

RESULT 4709
AAL40388
ID AAL40388 standard; DNA; 20 BP.
XX
AC AAL40388;
XX
DT 19-SEP-2002 (first entry)
XX
DE Mouse caspase 6 antisense inhibition related oligo SEQ ID No 107.
XX
KW Muscular; cytostatic; nootropic; neuroprotective; ophthalmological;
KW antilipaemic; osteopathic; caspase 6; Rieger's syndrome; bone metabolism;
KW ataxia telangiectasia; hyperproliferative disorder; cholesterol disorder;
KW haematopoietic disorder; cancer; neurological; Alzheimer's disease;
KW apoptotic; mouse; murine; ds.
XX
OS Mus musculus.
XX
PN WO200229066-A1.
XX
PD 11-APR-2002.
XX
PF 03-OCT-2001; 2001WO-US030871.
XX
PR 04-OCT-2000; 2000US-00679299.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Brown-Driver VL, Zhang H, Watt AT;
XX
DR WPI; 2002-471315/50.
XX
PT An antisense oligonucleotide of 8 to 50 nucleotides in length that
PT inhibits caspase 6, is useful for treating Rieger's syndrome.
XX
PS Claim 3; Page 92; 141pp; English.
XX
CC The invention relates to an antisense oligonucleotide compound of 8 to 50
CC nucleotides in length that is targeted to a nucleic acid molecule
CC encoding caspase 6, where the oligonucleotide specifically hybridises
CC with and inhibits the expression of caspase 6. The oligonucleotide of the
CC invention specifically hybridises to and inhibits expression of caspase 6
CC in cells or tissues. The oligonucleotides can be administered
CC therapeutically or prophylactically to treat an animal having a disease
CC or condition associated with caspase 6, such as Rieger's syndrome or
CC ataxia telangiectasia, hyperproliferative disorder, a haematopoietic
CC disorder, a bone metabolism or cholesterol disorder, various types of
CC cancer, neurological conditions such as Alzheimer's disease and other de-
CC regulated apoptotic pathological conditions. This polynucleotide sequence
CC represents a mouse caspase 6 oligonucleotide relating to the invention.
CC NOTE: This phosphorothioate oligonucleotide sequence has 2'-MOE wings and
CC a deoxy gap
XX
SQ Sequence 20 BP; 1 A; 8 C; 7 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 540 TGCCCCACCTCTCCGGG 556
|||||| |||||| |||
Db 2 TGCCCCGCCTCTCTGGG 18

RESULT 4710
ABA02214/c
ID ABA02214 standard; DNA; 20 BP.
XX
AC ABA02214;
XX
DT 12-FEB-2002 (first entry)
XX
DE Human/mouse C/EBP phosphorothioate antisense oligonucleotide, SEQ ID:26.
XX
KW Human; C/EBP alpha; CCAAT/enhancer-binding protein alpha; CEBPA;
KW transcription factor; tissue development; cellular function;
KW proliferation; differentiation; adipocyte; energy metabolism;
KW chondrogenic; ovulation; follicular development;
KW hepatic steroid-induced cell cycle arrest; GLUT2 promoter regulation;
KW hormonal metabolic regulation; granulocyte development; cancer;
KW tumour formation; infection; inflammation; expression inhibition;
KW antisense therapy; quantitative real-time PCR primer; ss.
XX
OS Homo sapiens.
OS Mus musculus.
XX
FH Key Location/Qualifiers
FT modified_base 1. .20
FT /*tag= a
FT /mod_base= OTHER

```
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6306655-B1.
XX
PD   23-OCT-2001.
XX
PF   13-JUN-2000; 2000US-00593589.
XX
PR   13-JUN-2000; 2000US-00593589.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-040202/05.
XX
PT   New antisense oligonucleotides for modulating the expression of
PT   CCAAT/Enhancer-binding proteins alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 42; 44pp; English.
XX
CC   Sequences ABA02205-ABA02282 represent antisense oligonucleotides targeted
CC   to the human CCAAT/enhancer-binding protein alpha (C/EBP alpha) gene,
CC   which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human C/EBP alpha RNA, and
CC   were analysed for their effect on C/EBP alpha mRNA levels by quantitative
CC   real-time PCR. A similar investigation on mouse C/EBP alpha expression
CC   was performed using a subset of the antisense oligonucleotides that were
CC   capable of hybridising to mouse C/EBP alpha mRNA. The C/EBP family of
CC   proteins are a family of transcription factors which regulate the
CC   expression of wide range of genes that control normal tissue development,
CC   cellular function, cellular proliferation and functional differentiation.
CC   C/EBP alpha (also known as CEBPA) is primarily found in tissues involved
CC   in energy metabolism which have a capacity to metabolise lipids,
CC   cholesterol and other sterols. It is thought to be involved in the
CC   regulation of adipocyte and chondrogenic differentation, and is also
CC   involved in follicular development and ovulation, steroid-induced cell
CC   cycle arrest in the liver, in controlling glucose transporter GLUT2
CC   promoter activity, in the hormonal regulation of metabolism, and in
CC   granulocyte development. The oligonucleotides of the invention are useful
CC   for diagnosis, prevention and treatment of conditions associated with
CC   C/EBP expression, such as cancer, tumour formation, infection, or
CC   inflammation
XX
SQ   Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        378 AGTCGGCCGACCCCTAC 394
              ||||||||||| ||||
Db         18 AGTCGGCCGACTTCTAC 2


RESULT 4711
AAD29918/c
ID   AAD29918 standard; DNA; 20 BP.
XX
AC   AAD29918;
XX
DT   17-MAY-2002  (first entry)
XX
DE   Mouse TID-1 cDNA 5' region amplifying RACE PCR primer #2.
XX
KW   Mouse; prostate cancer; calreticulin; TID-1 protein; TRAITS protein;
KW   androgen action pathway; cell proliferation; kidney cancer; lymphoma;
KW   epithelium-derived carcinoma; leukaemia; vaccine; gene therapy;
KW   cytostatic; U19; RACE PCR primer; rapid amplification of cDNA ends; ss.
XX
OS   Mus musculus.
XX
PN   WO200206327-A2.
XX
PD   24-JAN-2002.
XX
PF   17-JUL-2001; 2001WO-US022357.
XX
PR   17-JUL-2000; 2000US-0218761P.
PR   16-JUL-2001; 2001US-00906393.
XX
PA   (NOUN ) UNIV NORTHWESTERN.
XX
PI   Wang Z,  Xiao W;
XX
DR   WPI; 2002-179780/23.
XX
PT   Identifying a subject that is likely to have aggressive form of prostate
PT   cancer, involves comparing calreticulin levels in prostate specimen of
PT   the subject and in benign prostatic epithelial cells of the same subject.
XX
PS   Example 3; Page 87; 148pp; English.
XX
CC   The present invention relates to methods of distinguishing aggressive
CC   forms of prostate cancer from non-aggressive forms. The method involves
CC   comparing the level of calreticulin in prostate specimen and in benign
CC   prostatic epithelial cells of a subject. The invention particularly
CC   relates to two proteins, namely calreticulin and TID-1 (TRAITS; U19) that
CC   are down-regulated in aggressive forms of prostate cancer but not in
CC   slowly progressing prostate cancer. They play important roles in the part
CC   of androgen action pathway that suppresses cell proliferation and/or
CC   prevents prostate cancer. The method is useful for identifying a subject
CC   who is likely to have an aggressive form of prostate cancer. The
CC   invention further relates to a method of identifying a subject with a
CC   slow growing form of prostate cancer. TID-1 sequences are useful for
CC   treating cancers such as epithelium-derived carcinomas, kidney cancers,
CC   lymphomas, leukaemias and prostate cancers. Sequences of the invention
CC   are used as vaccines and in gene therapy. The present DNA sequence is a
CC   RACE (rapid amplification of cDNA ends) PCR primer which is used for
CC   amplifying the 5' region of mouse TID-1 cDNA
XX
SQ   Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2318 TGTTGCTGCTTGTCACC 2334
              || |||| |||||||||
Db         18 TGATGCTACTTGTCACC 2


RESULT 4712
ABK94486
ID   ABK94486 standard; DNA; 20 BP.
XX
AC   ABK94486;
XX
DT   27-AUG-2002  (first entry)
XX
DE   Human BRCA1 gene reverse PCR primer for exon fragment 11.13.
XX
KW   hMLH1; DNA mismatch repair; BRCA1; ss; PCR; primer; BRCA1;
KW   breast and ovarian cancer susceptibility gene; TGDS; human;
```

```
KW   two-dimensional DNA electrophoresis; tumour suppressor gene;
KW   breast cancer; ovarian cancer; tumour.
XX
OS   Homo sapiens.
XX
PN   WO200236819-A1.
XX
PD   10-MAY-2002.
XX
PF   06-NOV-2000; 2000WO-IB001607.
XX
PR   06-NOV-2000; 2000WO-IB001607.
XX
PA   (SCSC-) ACAD APPLIED SCI.
XX
PI   Vijg J;
XX
DR   WPI; 2002-471507/50.
XX
PT   Detecting mutations in the BRCA1 and hMLH1 gene comprises subjecting
PT   amplification products to 2-dimensional gel electrophoresis to produce a
PT   characteristic spot pattern for a specific mutation in either the BRCA1
PT   or the hMLH1 gene.
XX
PS   Claim 1; Page 39; 57pp; English.
XX
CC   The invention relates to detecting mutations in the BRCA1 and hMLH1 gene
CC   comprising subjecting a set of amplification products to two-dimensional
CC   DNA electrophoresis (TGDS) to produce a characteristic spot pattern for a
CC   specific mutation in either the BRCA1 or the hMLH1 gene. Also included
CC   are test kits for enabling BRCA1 or hMLH1 gene testing comprising short
CC   PCR primers given in the specification, mixed in 20 mM of Tris-HCl, 50 mM
CC   KCl, 25 micro M of dNTP, and 5 % formamide. The method is useful for
CC   detecting mutations in the BRCA1 (breast and ovarian cancer
CC   susceptibility gene, a tumour suppressor gene) and hMLH1 gene (a DNA
CC   mismatch repair gene). The present sequence is a PCR primer specific to
CC   BRCA1 used in the method of the invention
XX
SQ   Sequence 20 BP; 7 A; 2 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2673 AGTGTGTGTGGGTGAAA 2689
              | ||||| |||||||||
Db          3 AATGTGTATGGGTGAAA 19


RESULT 4713
ABS59782
ID   ABS59782 standard; DNA; 20 BP.
XX
AC   ABS59782;
XX
DT   05-NOV-2002  (first entry)
XX
DE   Human damage specific DNA binding protein 1 antisense oligo #74.
XX
KW   Antisense; cytostatic; hepatotrophic; antiinflammatory; virucide;
KW   Damage-specific DNA-binding protein 1; p127; cancer; human; ss;
KW   hyperproliferative disorder; haematopoietic cancer; hepatitis.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= m5c
FT                    /note= "All cytosines are 5-methyl cytosine"
FT   modified_base    1. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "OTHER= phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= CTHER
FT                    /note= "OTHER= 2'-O-methoxyethyl nucleotide"
FT   modified_base    16. .20
FT                    /*tag=  d
FT                    /mod_base= OTHER
FT                    /note= "OTHER= 2'-O-methoxyethyl nucleotide"
XX
PN   WO200246206-A1.
XX
PD   13-JUN-2002.
XX
PF   04-DEC-2001; 2001WO-US046485.
XX
PR   06-DEC-2000; 2000US-00731457.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Popoff I,  Wyatt JR;
XX
DR   WPI; 2002-599454/64.
XX
PT   Novel antisense compound targeted to nucleic acid molecule encoding
PT   Damage-specific DNA-binding protein 1, p127, useful for treating animal
PT   having disease associated with the protein such as liver cancer, or
PT   hepatitis.
XX
PS   Page 91; Claim 3; 121pp; English.
XX
CC   This invention relates to a novel antisense compound 8 to 50 nucleobases
CC   in length targeted to nucleic acid molecule encoding Damage-specific DNA-
CC   binding protein 1, p127 where the antisense compound specifically
CC   hybridises with and inhibits expression of the damage specific DNA
CC   binding protein-1 gene. The compounds of the invention may be used in
CC   antisense therapy as an inhibitor of expression of Damage-specific DNA-
CC   binding protein 1, p127. The antisense compounds of the invention are
CC   useful for inhibiting the expression of damage specific DNA binding
CC   protein 1, p127 in cells or tissues and are also useful for treating an
CC   animal having a disease or condition associated with expression of p127,
CC   such as a hyperproliferative disorder (e.g., cancer such as breast, skin,
CC   liver, or haematopoietic cancer), or hepatitis, by inhibiting the
CC   expression of p127. All antisense oligonucleotides of the invention are
CC   chimeric oligonucleotides (gapmers) 20 nucleotides in length, composed of
CC   a central gap region consisting of ten 2'-deoxynucleotides, which are
CC   flanked on both sides (5' and 3' directions) by five- nucleotide wings.
CC   The wings are composed of 2'-methoxyethyl (2'-MOE) nucleotides. The
CC   internucleoside (backbone) linkages are phosphorothioate (P=S) throughout
CC   the oligonucleotide and all cytidine residues are 5-methylcytidines. The
CC   present sequence represents a damage-specific DNA binding protein 1, p127
CC   antisense oligonucleotide of the invention
XX
SQ   Sequence 20 BP; 2 A; 6 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1362 GGTTTGGCAGCCAGGCC 1378
              || ||||||| ||||||
Db          2 GGCTTGGCAGTCAGGCC 18


RESULT 4714
AAD30205
ID   AAD30205 standard; DNA; 20 BP.
XX
AC   AAD30205;
XX
DT   17-MAY-2002  (first entry)
XX
```

DE Human UGT1A6-1 gene fragment polymorphism detecting primer, UGT1A6-R1.
XX
KW Human; single nucleotide polymorphism; SNP; diagnosis; pre-disposition;
KW drug induced livertoxicity; screening; UDP-glucuronosyl transferase;
KW UGT1; hepatotoxic reaction; sequence identification; drug metabolism;
KW genotyping; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200206523-A2.
XX
PD 24-JAN-2002.
XX
PF 02-JUL-2001; 2001WO-EP007524.
XX
PR 14-JUL-2000; 2000EP-00115353.
XX
PA (HOFF) HOFFMANN LA ROCHE & CO AG F.
XX
PI Acuna G, Foernzler D, Leong DU;
XX
DR WPI; 2002-179803/23.
XX
PT Detecting predisposition to hepatotoxic reaction of human being caused by
PT administration of a compound, by determining single nucleotide
PT polymorphism in UDP-glucuronosyl transferase gene in sample of human
PT being.
XX
PS Example; Page 23; 62pp; English.
XX
CC The invention relates to a method for diagnosing a pre-disposition to
CC drug induced livertoxicity which involves determining at least one single
CC nucleotide polymorphism (SNP) in the UDP-glucuronosyl transferase (UGT1)
CC gene. The method is useful for detecting a predisposition to a
CC hepatotoxic reaction of a human being caused by administration of a
CC pharmaceutically active compound based on determination of a SNP in UGT1
CC gene in a sample of the human being. Nucleic acids containing
CC polymorphism are useful for performing sequence identification. They are
CC also useful in screening assays, to establish animal, cell and in vitro
CC models for drug metabolism and for genotyping individuals. The present
CC sequence is a primer used to detect human UGT1A6-1 gene fragment
CC polymorphism
XX
SQ Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 894 CAGTGGCTGAAGTACAG 910
|||| | ||||||||||
Db 1 CAGTTGATGAAGTACAG 17

RESULT 4715
ABA97649/c
ID ABA97649 standard; DNA; 20 BP.
XX
AC ABA97649;
XX
DT 11-APR-2002 (first entry)
XX
DE probe t.
XX
KW ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS Unidentified.
XX
PN JP2001286300-A.
XX
PD 16-OCT-2001.
XX
PF 20-APR-2000; 2000JP-00120097.
XX
PR 20-APR-1999; 99JP-00111601.
PR 24-AUG-1999; 99JP-00236666.
PR 30-AUG-1999; 99JP-00242693.
PR 01-FEB-2000; 2000JP-00028896.
XX
PA (BIOI-) BIOINDUSTRY KYOKAI SH.
PA (KANK-) KANKYO ENG KK.
PA (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR WPI; 2002-134193/18.
XX
PT Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT the obtained data.
XX
PS Example 6; Page 18; 34pp; Japanese.
XX
CC This invention relates to a method for measuring nucleic acids using a
CC nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC decreases the fluorescence of the fluorochrome when hybridised with a
CC target nucleic acid, the decrease in the fluorescence is measured. The
CC method can be used for measuring a target nucleic acid
XX
SQ Sequence 20 BP; 14 A; 0 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2519 TTTTATTCATATATATA 2535
|||| || |||||||||
Db 18 TTTTTTTTATATATATA 2

RESULT 4716
ABA97648/c
ID ABA97648 standard; DNA; 20 BP.
XX
AC ABA97648;
XX
DT 11-APR-2002 (first entry)
XX
DE probe s.
XX
KW ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS Unidentified.
XX
PN JP2001286300-A.
XX
PD 16-OCT-2001.
XX
PF 20-APR-2000; 2000JP-00120097.
XX
PR 20-APR-1999; 99JP-00111601.
PR 24-AUG-1999; 99JP-00236666.
PR 30-AUG-1999; 99JP-00242693.
PR 01-FEB-2000; 2000JP-00028896.
XX
PA (BIOI-) BIOINDUSTRY KYOKAI SH.
PA (KANK-) KANKYO ENG KK.
PA (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR WPI; 2002-134193/18.
XX
PT Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT the obtained data.
XX
PS Example 6; Page 18; 34pp; Japanese.
XX
CC This invention relates to a method for measuring nucleic acids using a
CC nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC decreases the fluorescence of the fluorochrome when hybridised with a

```
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 13 A; 0 C; 2 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2519 TTTTATTCATATATATA 2535
              |||| || |||||||||
Db         18 TTTTTTTTATATATATA 2


RESULT 4717
ABA97650/c
ID   ABA97650 standard; DNA; 20 BP.
XX
AC   ABA97650;
XX
DT   11-APR-2002  (first entry)
XX
DE   probe u.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 15 A; 0 C; 0 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2519 TTTTATTCATATATATA 2535
              |||| || |||||||||
Db         18 TTTTTTTTATATATATA 2


RESULT 4718
AAD39347/c
ID   AAD39347 standard; DNA; 20 BP.
XX
AC   AAD39347;
XX
DT   04-OCT-2002  (first entry)
XX
DE   Human Von Willebrand factor-cleaving protease cloning PCR primer, 6395.
XX
KW   Human; Von Willebrand factor-cleaving protease; vWF-cp; therapy; enzyme;
KW   transgenic animal; immunisation; thromboembolic disease; preeclampsia;
KW   thrombotic thrombocytic purpura; TTP; Henoch-Schonlein purpura;
KW   thrombosis; neonatal thrombocytopaenia; haemolytic-uraemic syndrome;
KW   transgenic; anticoagulant; RT-PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200242441-A2.
XX
PD   30-MAY-2002.
XX
PF   20-NOV-2001; 2001WO-EP013391.
XX
PR   22-NOV-2000; 2000US-00721254.
PR   12-APR-2001; 2001US-00833328.
XX
PA   (BAXT ) BAXTER AG.
XX
PI   Laemmle B,  Gerritsen HE,  Furlan M,  Turecek P,  Schwarz H;
PI   Scheiflinger F,  Antoine G,  Kerschbaumer R,  Tagliavacca L;
PI   Zimmermann K,  Voelkel D;
XX
DR   WPI; 2002-479950/51.
XX
PT   Novel isolated or substantially purified Von Willebrand factor-cleaving
PT   protease, useful for producing preparation for therapy of thrombosis and
PT   thromboembolic disease such as thrombotic thrombocytic purpura.
XX
PS   Example 3; Page 34; 93pp; English.
XX
CC   The invention relates to an isolated or substantially pure Von Willebrand
CC   factor-cleaving protease (vWF-cp) polypeptide. vWF-cp is useful for
CC   purifying vWF which involves providing vWF-cp as a ligand, contacting a
CC   solution comprising vWF with the polypeptide ligand under conditions
CC   where vWF is bound to the ligand and recovering from the ligand purified
CC   vWF. vWF-cp is useful for producing anti-vWF cp polypeptide antibodies
CC   which involves immunising an animal with vWF-cp and isolating the anti-
CC   vWF cp polypeptide antibodies from the animal. vWF-cp is useful for
CC   producing a preparation of prophylaxis and therapy of thrombosis and
CC   thromboembolic disease such as thrombotic thrombocytic purpura (TTP),
CC   Henoch-Schonlein purpura, preeclampsia, neonatal thrombocytopaenia or
CC   haemolytic-uraemic syndrome. vWF-cp can also be used for processing
CC   plasmatic or recombinantly produced vWF. The invention is useful for
CC   construction expression systems and generating transgenic animals which
CC   express the polypeptide in vivo. The present sequence is human vWF-cp
CC   gene cloning RT-PCR primer
XX
SQ   Sequence 20 BP; 3 A; 6 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1591 CTGGGAACCCCTCCTGG 1607
              ||||| |||||||| ||
Db         17 CTGGGGACCCCTCCAGG 1


RESULT 4719
ABL94407
ID   ABL94407 standard; DNA; 20 BP.
XX
AC   ABL94407;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Mouse C/EBP beta phosphorothioate antisense oligonucleotide, SEQ ID:173.
XX
```

```
KW   Mouse; murine; C/EBP beta; CCAAT/enhancer-binding protein beta; C/EPB2;
KW   LAP; TCF5; CRP2; NFIL6; IL6DBP; NF-M; AGP/EBP; Apc/EBP;
KW   transcription factor; tissue development; cellular function;
KW   proliferation; differentiation; hormone responsiveness;
KW   oxidative stress response; IL-6 signalling mediator; interleukin-6;
KW   carbohydrate metabolism; immunity; Th1 response; female fertility;
KW   gluconeogenesis; ovarian; cancer; tumour formation; type II; diabetes;
KW   infection; inflammation; expression inhibition; phosphorothioate;
KW   antisense oligonucleotide; ss.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6271030-B1.
XX
PD   07-AUG-2001.
XX
PF   14-JUN-2000; 2000US-00593711.
XX
PR   14-JUN-2000; 2000US-00593711.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-214451/27.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human or
PT   mouse CCAAT/enhancer binding protein (C/EBP) beta, useful in vitro for
PT   inhibiting expression of human or mouse C/EBP beta in cells/tissues.
XX
PS   Example 17; Col 51-52; 69pp; English.
XX
CC   Sequences ABL94252-ABL94476 represent antisense oligonucleotides targeted
CC   to the human or mouse CCAAT/enhancer-binding protein alpha (C/EBP alpha)
CC   gene, which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human and/or mouse C/EBP
CC   alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels
CC   by quantitative real-time PCR. The C/EBP family of proteins are a family
CC   of transcription factors which regulate the expression of a wide range of
CC   genes that control normal tissue development, cellular function, cellular
CC   proliferation and functional differentiation. C/EBP beta (also known as
CC   C/EPB2, LAP, TCF5, CRP2, NFIL6, IL6DBP, NF-M, AGP/EBP and Apc/EBP)
CC   primarily regulates hormone responsiveness and oxidative stress responses
CC   and is a mediator of IL-6 (interleukin-6) signalling. C/EBP beta is
CC   thought to be involved in carbohydrate metabolism, immunity, the Th1
CC   response, female fertility and gluconeogenic pathways. C/EBP beta is
CC   expressed in the liver, lung, spleen, kidney, brain, and testis, with the
CC   highest expression found in the lung. It is also expressed at a higher
CC   level in malignant ovarian tissue compared with normal ovarian tissue,
CC   and its expression in pancreas is upregulated in response to chronically
CC   elevated levels of glucose, indicating that it is involved in the
CC   impairment of insulin secretion in type II diabetes. The oligonucleotides
CC   of the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with C/EBP beta expression, such as cancer
CC   (particularly ovarian cancer), tumour formation, diabetes (particularly
CC   type II diabetes), infection, or inflammation
XX
SQ   Sequence 20 BP; 2 A; 8 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        712 CCAGCACCTGTTGCTGC 728
              |||||||||  ||||||
Db          3 CCAGCACCTTGTGCTGC 19


RESULT 4720
ABI95113
ID   ABI95113 standard; DNA; 20 BP.
XX
AC   ABI95113;
XX
DT   16-FEB-2002  (first entry)
XX
DE   Capture oligonucleptide Zip ID#2200 oligo #9.
XX
KW   Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW   ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW   infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW   oncogene; tumour suppressor; human papillomavirus; forensic;
KW   environmental monitoring; food industry; feed industry; ss.
XX
OS   Synthetic.
XX
PN   WO200179548-A2.
XX
PD   25-OCT-2001.
XX
PF   04-APR-2001; 2001WO-US010958.
XX
PR   14-APR-2000; 2000US-0197271P.
XX
PA   (CORR ) CORNELL RES FOUND INC.
XX
PI   Barany F,  Zirvi M,  Gerry NP,  Favis R,  Kliman R;
XX
DR   WPI; 2002-034366/04.
XX
PT   Designing capture oligonucleotide probes for use on a support to which
PT   complementary oligonucleotides hybridize with little mismatch.
XX
PS   Example 5; Fig 29; 300pp; English.
XX
CC   The present invention describes a method (M1) for designing capture
CC   oligonucleotide probes (I) for use on a support to which complementary
CC   oligonucleotide probes (II) will hybridise with little mismatch, where
CC   (I) have melting temperatures within a narrow range. The method is useful
CC   for detecting infectious diseases caused by bacterial infectious agents
CC   e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC   infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC   Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC   Epstein-Barr virus and polio virus, and parasitic infectious agents
CC   selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC   medinesis. The method is also useful for detecting genetic diseases such
CC   as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC   Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC   involved in DNA amplification, replication, recombination or repair, the
CC   cancer is specifically associated with a gene selected from BRCA1 gene,
CC   p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC   method is also used for environmental monitoring, forensics and the food
CC   and feed industry, detecting comprises scanning (using e.g. a scanning
CC   electron microscope and infrared microscope) the support at the
CC   particular sites and identifying if ligation of the oligonucleotide probe
CC   sets occurred and correlating (using a computer) identified ligation to a
CC   presence or absence of the target nucleotide sequences. ABI82074 to
CC   ABI97546 represent oligonucleotide sequences used in the exemplification
CC   of the present invention
XX
```

SQ Sequence 20 BP; 7 A; 5 C; 7 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2299 GGGTAGGCACGAAGCAA 2315
              ||||||  | ||||||||
Db          4 GGGTAGACCCGAAGCAA 20
```

RESULT 4721
ABI95444
ID ABI95444 standard; DNA; 20 BP.
XX
AC ABI95444;
XX
DT 16-FEB-2002 (first entry)
XX
DE Capture oligonucleptide Zip ID#2531 oligo #9.
XX
KW Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW oncogene; tumour suppressor; human papillomavirus; forensic;
KW environmental monitoring; food industry; feed industry; ss.
XX
OS Synthetic.
XX
PN WO200179548-A2.
XX
PD 25-OCT-2001.
XX
PF 04-APR-2001; 2001WO-US010958.
XX
PR 14-APR-2000; 2000US-0197271P.
XX
PA (CORR) CORNELL RES FOUND INC.
XX
PI Barany F, Zirvi M, Gerry NP, Favis R, Kliman R;
XX
DR WPI; 2002-034366/04.
XX
PT Designing capture oligonucleotide probes for use on a support to which
PT complementary oligonucleotides hybridize with little mismatch.
XX
PS Example 5; Fig 29; 300pp; English.
XX
CC The present invention describes a method (M1) for designing capture
CC oligonucleotide probes (I) for use on a support to which complementary
CC oligonucleotide probes (II) will hybridise with little mismatch, where
CC (I) have melting temperatures within a narrow range. The method is useful
CC for detecting infectious diseases caused by bacterial infectious agents
CC e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC Epstein-Barr virus and polio virus, and parasitic infectious agents
CC selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC medinesis. The method is also useful for detecting genetic diseases such
CC as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC involved in DNA amplification, replication, recombination or repair, the
CC cancer is specifically associated with a gene selected from BRCA1 gene,
CC p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC method is also used for environmental monitoring, forensics and the food
CC and feed industry, detecting comprises scanning (using e.g. a scanning
CC electron microscope and infrared microscope) the support at the
CC particular sites and identifying if ligation of the oligonucleotide probe
CC sets occurred and correlating (using a computer) identified ligation to a
CC presence or absence of the target nucleotide sequences. ABI82074 to
CC ABI97546 represent oligonucleotide sequences used in the exemplification
CC of the present invention
XX

SQ Sequence 20 BP; 2 A; 6 C; 6 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1356 CCCACGGGTTTGGCAGC 1372
              |||||||||  ||| |||
Db          2 CCCACGGGTCTGGTAGC 18
```

RESULT 4722
ABI94329/c
ID ABI94329 standard; DNA; 20 BP.
XX
AC ABI94329;
XX
DT 16-FEB-2002 (first entry)
XX
DE Capture oligonucleptide Zip ID#1416 oligo #9.
XX
KW Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW oncogene; tumour suppressor; human papillomavirus; forensic;
KW environmental monitoring; food industry; feed industry; ss.
XX
OS Synthetic.
XX
PN WO200179548-A2.
XX
PD 25-OCT-2001.
XX
PF 04-APR-2001; 2001WO-US010958.
XX
PR 14-APR-2000; 2000US-0197271P.
XX
PA (CORR) CORNELL RES FOUND INC.
XX
PI Barany F, Zirvi M, Gerry NP, Favis R, Kliman R;
XX
DR WPI; 2002-034366/04.
XX
PT Designing capture oligonucleotide probes for use on a support to which
PT complementary oligonucleotides hybridize with little mismatch.
XX
PS Example 5; Fig 29; 300pp; English.
XX
CC The present invention describes a method (M1) for designing capture
CC oligonucleotide probes (I) for use on a support to which complementary
CC oligonucleotide probes (II) will hybridise with little mismatch, where
CC (I) have melting temperatures within a narrow range. The method is useful
CC for detecting infectious diseases caused by bacterial infectious agents
CC e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC Epstein-Barr virus and polio virus, and parasitic infectious agents
CC selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC medinesis. The method is also useful for detecting genetic diseases such
CC as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC involved in DNA amplification, replication, recombination or repair, the
CC cancer is specifically associated with a gene selected from BRCA1 gene,
CC p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC method is also used for environmental monitoring, forensics and the food
CC and feed industry, detecting comprises scanning (using e.g. a scanning
CC electron microscope and infrared microscope) the support at the
CC particular sites and identifying if ligation of the oligonucleotide probe
CC sets occurred and correlating (using a computer) identified ligation to a
CC presence or absence of the target nucleotide sequences. ABI82074 to
CC ABI97546 represent oligonucleotide sequences used in the exemplification
CC of the present invention
XX

```
SQ   Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        395 TCGCATCTGGGGGAAGC 411
              ||||||| |||| |||
Db         19 TCGCATCTAGGGGGAGC 3


RESULT 4723
AAL41524/c
ID   AAL41524 standard; DNA; 20 BP.
XX
AC   AAL41524;
XX
DT   05-DEC-2002  (first entry)
XX
DE   Oligonucleotide initiator SEQ ID No 13.
XX
KW   Cytostatic; cancer; Slug gene; mesenchymal cancer cell; leukaemia;
KW   sarcoma; antitumour agent; antisense therapy; ds.
XX
OS   Unidentified.
XX
PN   WO200259361-A1.
XX
PD   01-AUG-2002.
XX
PF   23-JAN-2002; 2002WO-ES000026.
XX
PR   23-JAN-2001; 2001ES-00000151.
XX
PA   (UYSA-) UNIV SALAMANCA OTRI.
PA   (CNSJ ) CONSEJO SUPERIOR INVESTIGACIONES CIENTIF.
XX
PI   Sanchez Garcia I,  Orfao De Matos A,  Perez Losada J;
XX
DR   WPI; 2002-691533/74.
XX
PT   Detecting cancerous cells, useful for diagnosis and prognosis, comprises
PT   measuring abnormally high expression of the Slug gene or its protein.
XX
PS   Disclosure; Page 57; 61pp; Spanish.
XX
CC   The invention relates to a method for detecting cancerous cells in a
CC   vertebrate sample. The method comprises determining aberrant expression
CC   of the Slug gene, relative to a normal control sample. The method is used
CC   to detect (for diagnosis, monitoring progression and detection of
CC   residual disease after treatment) mesenchymal cancer cells (leukaemia or
CC   sarcoma) in humans. Agents that inhibit Slug (at DNA, RNA or protein
CC   levels) are potential antitumour agents. The polynucleotides of the
CC   invention can be used in antisense therapy. This polynucleotide sequence
CC   represents an oligonucleotide relating to the Slug gene of the invention
XX
SQ   Sequence 20 BP; 1 A; 8 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        490 CCAGGAGGGAGCGGGGC 506
              |||||| |||||| |||
Db         19 CCAGGAAGGAGCGCGGC 3


RESULT 4724
AAL45509/c
ID   AAL45509 standard; DNA; 20 BP.
XX
AC   AAL45509;
XX
DT   29-AUG-2003  (revised)
DT   06-JUN-2002  (first entry)
XX
DE   HIV-1 gag amplification oligomer SEQ ID NO: 47.
XX
KW   HIV-1; gag gene; pol gene; PCR; primer; drug resistance; genetic subtype;
KW   probe; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   WO200220852-A1.
XX
PD   14-MAR-2002.
XX
PF   01-SEP-2000; 2000WO-US024117.
XX
PR   01-SEP-2000; 2000WO-US024117.
XX
PA   (GENP-) GEN-PROBE INC.
PA   (INMR ) BIOMERIEUX SA.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-292273/33.
XX
PT   New nucleic acid oligomer, useful for detecting selected regions of gag
PT   and pol genes of human immune deficiency virus, particularly for
PT   assessing drug resistance.
XX
PS   Claim 1; Page 62; 82pp; English.
XX
CC   The present invention provides a number of nucleic acid oligomers which
CC   can be used to amplify the gag and pol genes of human immunodeficiency
CC   virus type I (HIV-1). These are used to detect regions of the gag and pol
CC   genes, especially regions associated with drug resistance, and also for
CC   identifying genetic subtypes of the virus. The present sequence is an
CC   oligomer of the invention. (Updated on 29-AUG-2003 to standardise OS
CC   field)
XX
SQ   Sequence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||| | ||
Db         20 ATTATCAGAAGGAGCCA 4


RESULT 4725
ABS59590/c
ID   ABS59590 standard; DNA; 20 BP.
XX
AC   ABS59590;
XX
DT   05-NOV-2002  (first entry)
XX
DE   Real-time forward PCR primer, used to determine SEC10 expression.
XX
KW   Human; PCR; ss; SEC; NOV; immunosuppressive; hepatotropic;
KW   antiinflammatory; angiogenic-associated disorder; diagnostic;
KW   gene therapy; developmental disorder; immune disease;
KW   signal transduction pathway disorder; metabolic disorder;
KW   feeding disorder; obesity; wasting disorder; neurodegenerative disorder;
KW   Alzheimer's disease; Parkinson's disease; behavioural disorder; allergy;
KW   asthma; atherosclerosis; cardiomyopathy; angina pectoris;
KW   autoimmune disease; retinal disease; cirrhosis; diabetes;
KW   infectious disease; human immunodeficiency virus; HIV; cancer;
KW   hypertension; hypotension; multiple sclerosis; urinary retention;
KW   osteoporosis; Crohn's disease; ulcer; neurological disorder; anxiety;
KW   haemophilia; cirrhosis; immunogen; vaccine; primer.
XX
```

OS Homo sapiens.
XX
PN WO200255705-A2.
XX
PD 18-JUL-2002.
XX
PF 11-JAN-2002; 2002WO-US000609.
XX
PR 11-JAN-2001; 2001US-0261013P.
PR 11-JAN-2001; 2001US-0261014P.
PR 11-JAN-2001; 2001US-0261018P.
PR 11-JAN-2001; 2001US-0261026P.
PR 11-JAN-2001; 2001US-0261029P.
PR 17-AUG-2001; 2001US-0313170P.
PR 10-SEP-2001; 2001US-0318410P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Mezes PS, Rastelli L, Herrmann JL, Macdougall JR, Zhong H;
PI Casman SJ, Boldog F, Shimkets RA, Gorman L, Crasta OR, Mysore KK;
PI Folkerts O, Martin GB, Eisen A, Spaderna SK, Vernet CAM, Bergh C;
PI Spytek KA, Dipippo VA, Zerhusen BD, Peyman JA, Ellerman K, Stone DJ;
PI Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
PI Edinger S;
XX
DR WPI; 2002-590675/63.
XX
PT Human SECX/NOVX polypeptide useful for diagnosing, preventing or treating
PT disorders associated with aberrant expression or activity of SECX/NOVX
PT nucleic acids and proteins e.g., diabetes.
XX
PS Example 2; Page 325; 443pp; English.
XX
CC The invention discloses the isolated human polypeptides, and
CC polynucleotides encoding them, that have been designated SECX and NOVX.
CC The polypeptides can be used for treating, or delaying, the onset of an
CC angiogenic-associated disorder or treating a pathological state in a
CC subject, preferably a mammal. They can also be used in determining the
CC presence of, or predisposition to, a disease associated with altered
CC levels of the polypeptides and polynucleotides of any one of the 12
CC sequences (SEC1-12), for raising antibodies, for identifying an agent
CC that binds to, or that modulates the expression or activity of the
CC polypeptide, for treating or preventing a NOVX-associated disorder (NOV1-
CC 8) and as a pharmaceutical composition comprising the polypeptide,
CC polynucleotide or the antibody. The polypeptides and polynucleotides are
CC useful in diagnostic applications where their amounts are assessed, or
CC for the manufacture of a medicament (e.g. gene therapy) for treating or
CC preventing disorders or syndromes such as developmental disorders, immune
CC diseases, signal transduction pathway disorders, metabolic disorders,
CC feeding disorders (including obesity), wasting disorders,
CC neurodegenerative disorders (including Alzheimer's disease and
CC Parkinson's disease), behavioural disorders, allergies, asthma,
CC atherosclerosis, cardiomyopathy, angina pectoris, autoimmune diseases,
CC retinal disease, cirrhosis, diabetes, infectious disease (bacterial,
CC fungal, protozoal and viral e.g. human immunodeficiency virus, HIV),
CC cancer (e.g. prostate cancer), hypertension, hypotension, multiple
CC sclerosis, urinary retention, osteoporosis, Crohn's disease, ulcers,
CC neurological disorders (e.g. anxiety), haemophilia or cirrhosis. They may
CC also be used as immunogens to produce antibodies specific for the
CC invention, and as vaccines. Further, they are useful for screening
CC potential agonist and antagonist compounds. The sequences presented in
CC ABS59542-ABS59699 are the PCR primers and probes which were used to
CC amplify and detect expression of human SEC1-12 and NOV1-8 cDNA
XX
SQ Sequence 20 BP; 6 A; 7 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1123 TGTCTGTGAAGCCGAAT 1139
|| |||||||||| ||||
Db 20 TCTCTGTGAAGCTGAAT 4

RESULT 4726
ABZ85453/c
ID ABZ85453 standard; DNA; 20 BP.
XX
AC ABZ85453;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 695; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 14 A; 1 C; 1 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2256 TTATTTGCATATTTATT 2272
|||||||| ||||| ||
Db 20 TTATTTGCTTATTTTTT 4

```
RESULT 4727
ABZ88060
ID   ABZ88060 standard; DNA; 20 BP.
XX
AC   ABZ88060;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 3302; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        650 GCCGAGAACCTGGGGCT 666
              ||||||| ||||| |||
Db          4 GCCGAGATCCTGGAGCT 20
```

```
RESULT 4728
ABZ89895
ID   ABZ89895 standard; DNA; 20 BP.
XX
AC   ABZ89895;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 5137; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 12 A; 1 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAA 2799
              ||||  ||||||||||
Db          4 TTGAGGAAAAAAAAAAA 20
```

```
RESULT 4729
ABZ90674
ID   ABZ90674 standard; DNA; 20 BP.
XX
AC   ABZ90674;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 5916; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 13 A; 2 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1973 ACCTTGAAAAAAAGAAA 1989
              | ||| ||||||||||
Db          4 ATCTTTAAAAAAAGAAA 20
```

```
RESULT 4730
ABZ93123/c
ID   ABZ93123 standard; DNA; 20 BP.
XX
AC   ABZ93123;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 8365; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 6 C; 7 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1672 GCCCCTGGACTTCTTAG 1688
              |||||||||||||  ||
Db         18 GCCCCTGGACTTCCAAG 2
```

```
RESULT 4731
ABZ88828/c
ID   ABZ88828 standard; DNA; 20 BP.
XX
AC   ABZ88828;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4070; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 6 A; 2 C; 2 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2729 CCAAATAATTGTTGTGT 2745
              ||||| ||||||| |||
Db         19 CCAAAAAATTGTTATGT 3
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```
RESULT 4732
ABZ89594/c
ID   ABZ89594 standard; DNA; 20 BP.
XX
AC   ABZ89594;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4836; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 13 A; 0 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2161 TCTCCTTTTTTTTTTTT 2177
              || | ||||||||||||
Db         17 TCCCATTTTTTTTTTTT 1
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RESULT 4733
ABZ90507
ID   ABZ90507 standard; DNA; 20 BP.
XX
AC   ABZ90507;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 5749; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 8 A; 1 C; 2 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1823 TTAGAATCTTTTAAATA 1839
              ||||||| ||||||| |
Db          1 TTAGAATTTTTTAAAGA 17
```

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RESULT 4734
ABZ97297/c
ID   ABZ97297 standard; DNA; 20 BP.
XX
AC   ABZ97297;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human nucleic acid sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 12539; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 10 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        561 AGGCGGGCGCGGTGAGC 577
              ||||||||| ||| |||
Db         19 AGGCGGGCGTGGTCAGC 3
```

RESULT 4735
ABZ86168
ID ABZ86168 standard; DNA; 20 BP.
XX
AC ABZ86168;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 1410; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 6 C; 2 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1469 CCAGCTGATTCTAACAA 1485
||||||| || ||||||
Db 3 CCAGCTGTTTTTAACAA 19

RESULT 4736
ABZ94127/c
ID ABZ94127 standard; DNA; 20 BP.
XX
AC ABZ94127;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 9369; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 14 A; 1 C; 3 G; 1 T; 0 U; 1 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2175 TTTTTTTTTTTTAACTTT 2192
||||||||| ||| ||| |
Db 20 TTTTTTTTNTTTCACTGT 3

RESULT 4737
ABZ85671
ID ABZ85671 standard; DNA; 20 BP.
XX
AC ABZ85671;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 913; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2171 TTTTTTTTTTTTTTTTA 2187
              |||||| | ||||||||
Db          1 TTTTTTCTATTTTTTTA 17
```

RESULT 4738
ABZ86919
ID ABZ86919 standard; DNA; 20 BP.
XX
AC ABZ86919;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 2161; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 5 C; 7 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1176 CTCATCTTGGAGGACGA 1192
              ||||||| || ||||||
Db          3 CTCATCTGGGGGGACGA 19
```

```
RESULT 4739
ABZ99084
ID   ABZ99084 standard; DNA; 20 BP.
XX
AC   ABZ99084;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human PDE4C oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 14326; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2171 TTTTTTTTTTTTTTTA 2187
              |||| ||||| ||||||
Db          1 TTTTCTTTTTATTTTA 17
```

```
RESULT 4740
ABZ93066/c
ID   ABZ93066 standard; DNA; 20 BP.
XX
AC   ABZ93066;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 8308; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 4 A; 4 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1517 TAAAATTGGAACGAAGA 1533
              ||||||| || |||||
Db         17 TAAAATTGTAAAGAAGA 1
```

```
RESULT 4741
ABZ85437
ID   ABZ85437 standard; DNA; 20 BP.
XX
AC   ABZ85437;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 679; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 8 A; 2 C; 1 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1774 TTTTTTTTGAACCCCAT 1790
              ||||||||||| || ||
Db          1 TTTTTTTTGAAACCAAT 17
```

```
RESULT 4742
ABZ91047
ID   ABZ91047 standard; DNA; 20 BP.
XX
AC   ABZ91047;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 6289; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 2 A; 4 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2154 ATTTTTTTCTCCTTTTT 2170
              |||||||||| ||| ||
Db          1 ATTTTTTTCTTCTTGTT 17
```

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RESULT 4743
ABZ91735/c
ID   ABZ91735 standard; DNA; 20 BP.
XX
AC   ABZ91735;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 6977; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 13 A; 0 C; 1 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2519 TTTTATTCATATATATA 2535
              | || ||||||||||||
Db         18 TATTTTTCATATATATA 2
```

```
RESULT 4744
ABZ85702
ID   ABZ85702 standard; DNA; 20 BP.
XX
AC   ABZ85702;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 944; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 6 A; 2 C; 4 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2591 ATTTAATTGAAACTCTC 2607
              ||||||| |||| ||||
Db          4 ATTTAATGGAAAGTCTC 20
```

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RESULT 4745
ABZ85292
ID   ABZ85292 standard; DNA; 20 BP.
XX
AC   ABZ85292;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 534; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 0 A; 5 C; 13 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              | |||||||||||| |||
Db          1 GGGGCGGGGGCGGTGGC 17
```

```
RESULT 4746
ABZ85546
ID   ABZ85546 standard; DNA; 20 BP.
XX
AC   ABZ85546;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 788; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 5 A; 5 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1327 GAACTGCTTGTCTCATT 1343
              ||||| |||||| ||||
Db          4 GAACTACTTGTCGCATT 20
```

RESULT 4747
ABZ89893
ID ABZ89893 standard; DNA; 20 BP.
XX
AC ABZ89893;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5135; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 2 C; 2 G; 11 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1764 ATTAAGCTTTTTTTTTT 1780
||||| |||||||| ||
Db 1 ATTAAACTTTTTTTCTT 17

RESULT 4748
ABZ98459
ID ABZ98459 standard; DNA; 20 BP.
XX
AC ABZ98459;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human ICAM oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13701; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 21 GTCCAGTGACCCGGACA 37
||||||| ||||||||
Db 1 GTCCAGTTTCCCGGACA 17

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RESULT 4749
ABZ88711
ID   ABZ88711 standard; DNA; 20 BP.
XX
AC   ABZ88711;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 3953; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 4 A; 5 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2706 AACTCTCTGCCTGTAAA 2722
              ||||||||||| || |
Db          1 AACTCTCTGCCTTTATA 17
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RESULT 4750
ABZ87697/c
ID   ABZ87697 standard; DNA; 20 BP.
XX
AC   ABZ87697;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 2939; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2173 TTTTTTTTTTTTTTAAC 2189
              |||| |||||||| |||
Db         18 TTTTGTTTTTTTTAAAC 2
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RESULT 4751
ABZ88668
ID   ABZ88668 standard; DNA; 20 BP.
XX
AC   ABZ88668;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 3910; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 6 A; 3 C; 2 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1758 TTATTCATTAAGCTTTT 1774
              ||||||||  || |||||
Db          1 TTATTCATGAAACTTTT 17
```

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RESULT 4752
ABZ92288/c
ID   ABZ92288 standard; DNA; 20 BP.
XX
AC   ABZ92288;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 7530; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 2 A; 5 C; 1 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2780 GAATTGAAAAAAAAAAA 2796
              || | ||||||||||||
Db         19 GACTGGAAAAAAAAAAA 3
```

```
RESULT 4753
ABZ98730/c
ID   ABZ98730 standard; DNA; 20 BP.
XX
AC   ABZ98730;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human tryptase a oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 13972; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 10 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        561 AGGCGGGCGCGGTGAGC 577
              ||||||||| ||| |||
Db         19 AGGCGGGCGTGGTCAGC 3
```

```
RESULT 4754
ABX13312
ID   ABX13312 standard; DNA; 20 BP.
XX
AC   ABX13312;
XX
DT   14-MAY-2003  (first entry)
XX
DE   Human NSDHL gene, exon 4 PCR primer #1.
XX
KW   Human; ss; PCR; 3beta-hydroxysteroid dehydrogenase; 3beta-HSD; NSDHL;
KW   cholesterol biosynthesis; mevalonic aciduria; desmosterolosis;
KW   Smith-Lemli-Opitz syndrome; SLOS; Conradi-Hunermann-Happle syndrome;
KW   chondroplasia punctata; X-linked disease; chromosome Xq28; psoriasis;
KW   CHILD syndrome; bone disorder; osteoporosis; osteosclerosis;
KW   congenital hemidysplasia; ichthyosiform erythroderma and limb defect;
KW   ichthyosis; eye disorder; cataract; microopthalmia; arthritis;
KW   cholest-8(9)-en-3beta-ol; skin disorder; primer.
XX
OS   Homo sapiens.
XX
PN   US2002172956-A1.
XX
PD   21-NOV-2002.
XX
PF   05-SEP-2001; 2001US-00946406.
XX
PR   01-JUN-1999;   99US-0137020P.
PR   01-JUN-2000; 2000US-00588976.
XX
PA   (CHIL-) CHILDRENS HOSPITAL INC.
XX
PI   Herman GE,  Kelley RI,  Grange DK;
XX
DR   WPI; 2003-310984/30.
XX
PT   Diagnosing CHILD syndrome or psoriasis, by detecting differences between
PT   patient and wild type genes encoding 3 beta-hydroxysteroid dehydrogenase
PT   or accumulation of sterol intermediates in body fluids of the patient.
XX
PS   Disclosure; Page 2; 23pp; English.
XX
CC   The invention relates to diagnosing congenital hemidysplasia,
CC   ichthyosiform erythroderma and limb defects (CHILD) syndrome or psoriasis
CC   in a patient, involves detecting nucleotide difference between patient
CC   NSDHL oligonucleotide (gene encoding 3beta-hydroxysteroid dehydrogenase
CC   (3beta-HSD)) and wild type NSDHL gene, or detecting accumulation of
CC   sterol intermediates before the generation of cholest-8(9)-en-3beta-ol in
CC   the cholesterol biosynthetic pathway, in the body fluids or cells of the
CC   patient. The method is useful for diagnosing CHILD syndrome and psoriasis
CC   in a patient. Other diseases implicated in defects of the cholesterol
CC   biosynthetic pathway include mevalonic aciduria, desmosterolosis, Smith-
CC   Lemli-Opitz syndrome (SLOS), Conradi-Hunermann- Happle syndrome;
CC   chondroplasia punctata (X-linked disease), bone disorders, osteoporosis,
CC   osteosclerosis, skin disorders, ichthyosis, eye disorders, (e.g. cataract
CC   and microopthalmia) and arthritis. The human NSDHL gene is located on
CC   chromosome X128. The present sequence is a primer for routine sequencing
CC   of and mutation detection in the human NSDHL gene (one of 8 exons or the
CC   non-coding region)
XX
SQ   Sequence 20 BP; 5 A; 6 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1871 GCCATTGAAATGTCAAA 1887
              ||||||||  |||||||
Db          2 GCCATTGACCTGTCAAA 18
```

RESULT 4755
ACC62221
ID ACC62221 standard; DNA; 20 BP.
XX
AC ACC62221;
XX
DT 20-JUN-2003 (first entry)
XX
DE Mouse alipoprotein B antisense oligonucleotide SEQ ID NO: 110.
XX
KW alipoprotein B; ApoB; antilipaemic; antiarteriosclerotic; antidiabetic;
KW anorectic; cardiovascular; gene therapy; lipid metabolism;
KW cholesterol metabolism; atherosclerosis; hyperlipidaemia; diabetes;
KW type 2 diabetes; obesity; atherosclerosis; cardiovascular disease;
KW glucose; antisense oligonucleotide; ss.
XX
OS Synthetic.
XX
PN WO2003011887-A2.
XX
PD 13-FEB-2003.
XX
PF 30-JUL-2002; 2002WO-US024247.
XX
PR 01-AUG-2001; 2001US-00920033.
PR 30-APR-2002; 2002US-00135985.
PR 15-MAY-2002; 2002US-00147196.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Crooke RM, Graham MJ;
XX
DR WPI; 2003-268105/26.
XX
PT New antisense oligonucleotides for modulating apolipoprotein B,
PT especially for preventing or treating atherosclerosis, hyperlipidemia or
PT diabetes, or for modulating glucose, cholesterol, lipoprotein or
PT triglyceride levels.
XX
PS Example 17; Page 100; 160pp; English.
XX
CC The invention relates to a novel compound that is 8-50 nucleotides in
CC length that is targeted to a nucleic acid molecule encoding
CC apolipoprotein B (ApoB), and specifically hybridises with and inhibits
CC the expression of a nucleic acid molecule encoding ApoB; or which
CC specifically hybridises with at least an 8-nucleotide portion of an
CC active site on a nucleic acid molecule encoding ApoB. A compound of the
CC invention has antilipaemic, antiarteriosclerotic, antidiabetic,
CC anorectic, and cardiovascular activity. The compound may have a use in
CC gene therapy. The antisense oligonucleotide is useful for treating an
CC animal having a disease or conditions associated with ApoB, e.g. a
CC condition involving abnormal lipid metabolism, a condition involving
CC abnormal cholesterol metabolism, atherosclerosis, or a condition
CC involving an abnormal metabolic condition (e.g. hyperlipidaemia, diabetes
CC (specifically Type 2 diabetes), obesity, atherosclerosis or
CC cardiovascular disease). The new compound or the antisense
CC oligonucleotide is also useful for modulating glucose levels
CC (particularly plasma or serum glucose levels) in a human or diabetic
CC animal, or for modulating serum cholesterol levels, lipoprotein levels
CC (specifically VLDL, HDL or LDL) or serum triglyceride levels,
CC particularly in a human. The antisense compound is also useful for
CC preventing or delaying the onset of a disease or condition associated
CC with ApoB, or the onset of an increase in glucose levels in the animal or
CC human. The present sequence is used in the exemplification of the
CC invention
XX
SQ Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 753 GTCCCATTTCCATGACC 769
| |||| ||||||||||
Db 2 GGCCCAGTTCCATGACC 18

RESULT 4756
ABT34071/c
ID ABT34071 standard; DNA; 20 BP.
XX
AC ABT34071;
XX
DT 29-MAY-2003 (first entry)
XX
DE Human pigmentation trait-related PCR primer - SEQ ID No 170.
XX
KW Human; single nucleotide polymorphism; SNP; ss; melanocortin-1 receptor;
KW genetic pigmentation trait; MC1R; agouti signaling protein; ASIP; race;
KW hair colour; eye colour; forensic tool; PCR; primer.
XX
OS Homo sapiens.
XX
PN WO200297047-A2.
XX
PD 05-DEC-2002.
XX
PF 28-MAY-2002; 2002WO-US016789.
XX
PR 25-MAY-2001; 2001US-0293560P.
PR 21-JUN-2001; 2001US-0300187P.
PR 07-AUG-2001; 2001US-0310781P.
PR 17-SEP-2001; 2001US-0323662P.
PR 26-OCT-2001; 2001US-0344418P.
PR 15-NOV-2001; 2001US-0334674P.
PR 02-JAN-2002; 2002US-0346303P.
XX
PA (DNAP-) DNAPRINT GENOMICS INC.
XX
PI Frudakis T;
XX
DR WPI; 2003-239091/23.
XX
PT Inferring genetic pigmentation trait such as hair/eye color or shade from
PT nucleic acid sample of human subject, by identifying a pigmentation-
PT related haplotype allele of a pigmentation gene in the sample.
XX
PS Example 17; Page 246; 396pp; English.
XX
CC The invention comprises a method for inferring a genetic pigmentation
CC trait of a human. The method involves identifying a single nucleotide
CC polymorphism (SNP) in a pigmentation gene - where the pigmentation gene
CC is not melanocortin-1 receptor (MC1R) and agouti signaling protein
CC (ASIP). The method of the invention is useful for inferring a genetic
CC pigmentation trait of a human, especially for inferring the race of a
CC human subject. The method is useful for inferring a genetic pigmentation
CC trait such as hair shade or colour, or eye shade or colour of a human
CC subject. The method may be used as a forensic tool for obtaining
CC information relating to physical characteristics of a potential crime
CC victim or a perpetrator of a crime from a nucleic acid sample present at
CC a crime scene. The present PCR primer is used in the exemplification of
CC the invention
XX
SQ Sequence 20 BP; 2 A; 5 C; 4 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1503 AGAAACACAGGAAATAA 1519
|||| |||||||||| |
Db 20 AGAAGCACAGGAAATTA 4

RESULT 4757
ACC55341/c

```
ID   ACC55341 standard; DNA; 20 BP.
XX
AC   ACC55341;
XX
DT   27-JUN-2003  (first entry)
XX
DE   Human ADAMTS13 exon 17-18 forward PCR primer.
XX
KW   Human; thrombotic thrombocytopenic purpura; TTP; disintegrin;
KW   metalloproteinase; thrombospondin 1-like domains 13; ADAMTS13;
KW   thrombolytic; haemostatic; PCR; primer; RT-PCR; 5' RACE; 3' RACE; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003016492-A2.
XX
PD   27-FEB-2003.
XX
PF   16-AUG-2002; 2002WO-US026285.
XX
PR   16-AUG-2001; 2001US-0312834P.
PR   16-AUG-2002; 2002US-00312834.
XX
PA   (UNMI ) UNIV MICHIGAN.
XX
PI   Ginsburg D,  Levy G,  Tsai H;
XX
DR   WPI; 2003-268318/26.
XX
PT   Identifying risk of developing thrombotic thrombocytopenic purpura
PT   disease, using a novel disintegrin and metalloproteinase containing
PT   thrombospondin 1-like domains genes and proteases.
XX
PS   Example 1; Page 89; 98pp; English.
XX
CC   The invention relates to a novel method for identifying subjects at risk
CC   of developing thrombotic thrombocytopenic purpura (TTP) disease,
CC   comprising providing nucleic acid having a disintegrin and
CC   metalloproteinase containing thrombospondin 1-like domains 13 (ADAMTS13)
CC   gene from a subject, and detecting the presence or absence of one or more
CC   variations in the ADAMTS13 gene. The method of the invention has
CC   thrombolytic and haemostatic activity. The methods and compositions of
CC   the present invention are useful for the diagnosis and treatment of,
CC   and/or analysing risks for thrombotic thrombocytopenic purpura. The
CC   present sequence is used in the exemplification of the invention
XX
SQ   Sequence 20 BP; 5 A; 3 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2609 GTTCAGAAAGCAATAAC 2625
              ||||||  |||||||  ||
Db         17 GTTCAGCAAGCAATCAC 1


RESULT 4758
ACC45351
ID   ACC45351 standard; DNA; 20 BP.
XX
AC   ACC45351;
XX
DT   17-JUN-2003  (first entry)
XX
DE   Escherichia coli sucD related probe SEQ ID NO:47.
XX
KW   Fine chemical; Coryneform bacteria; Escherichia coli; microorganism;
KW   genetically modified microorganism; metabolite; biosynthesis; amino acid;
KW   vitamin; nucleoside; nucleotide; pigment; protein; human medicine;
KW   pharmaceutical; food; animal feeding; sucD; probe; ss.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
PN   WO20C3023016-A2.
XX
PD   20-MAR-2003.
XX
PF   11-SEP-2002; 2002WO-EP010174.
XX
PR   13-SEP-2001; 2001DE-01045043.
XX
PA   (DEGS ) DEGUSSA AG.
XX
PI   Farwick M,  Hermann T;
XX
DR   WPI; 2003-354534/33.
XX
PT   Microorganism useful for producing e.g. fine chemicals, has permanently
PT   altered phosphorylatability protein, such that biosynthesis of fine
PT   chemical synthesized by microorganism is increased compared to wild-type.
XX
PS   Disclosure; Page 119; 120pp; English.
XX
CC   The present invention describes a microorganism (I), in which the
CC   phosphorylatability of at least one protein has been permanently altered
CC   such that the biosynthesis of at least one fine chemical synthesised by
CC   the microorganism is increased compared to the wild type. Also described:
CC   (1) use of a DNA (II) sequence coding for a protein which contains a
CC   phosphorylation site, where the sequence contains such a mutation that
CC   the protein is changed in its phosphorylatability for the production of
CC   (I), or for the production of fine chemicals; and (2) a method for
CC   producing fine chemicals or metabolites comprising using (I). (I) is
CC   useful for producing fine chemicals or metabolites, such as amino acids,
CC   vitamins, nucleosides, nucleotides, pigments or proteins. The amino acids
CC   and vitamins produced using (I) can be used in human medicine, in the
CC   pharmaceutical industry, food industry and in animal feeding. (I)
CC   produces larger amount of desired fine chemical or a metabolite than the
CC   wild type. The present sequence represents a probe for sucD from
CC   Escherichia coli, which is used in an example from the present invention
XX
SQ   Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        592 CTACCGCCGCTCCGACC 608
              |||||||||  ||  ||||
Db          1 CTACCGCCGATCTGACC 17


RESULT 4759
ADA26702
ID   ADA26702 standard; DNA; 20 BP.
XX
AC   ADA26702;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Rat Jun N-terminal kinase, JNK3, antisense oligonucleotide ISIS21912.
XX
KW   ss; rat; Jun N-terminal kinase; JNK1; JNK2; JNK3; antisense; cytostatic;
KW   antiinflammatory; apoptosis; prostate cancer; prostate tumour;
KW   inflammation; fibrosis; fibrotic disease; fibrotic scarring;
KW   peritoneal adhesion; lung fibrosis; conjunctival scarring;
KW   hyperproliferative disease; cancer; probe.
XX
OS   Rattus norvegicus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "All cytosines are 5-methyl-cytosines"
```

```
FT   modified_base   1. .5
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "2'methoxyethoxy-modified and phosphorothioate
FT                   linkages"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'methoxyethoxy-modified and phosphorothioate
FT                   linkages"
XX
PN   US2003004120-A1.
XX
PD   02-JAN-2003.
XX
PF   31-JAN-2001; 2001US-00774809.
XX
PR   13-AUG-1997;   97US-00910629.
PR   07-AUG-1998;   98US-00130616.
PR   07-APR-1999;   99US-00287796.
PR   15-SEP-1999;   99US-00396902.
XX
PA   (MCKA/) MCKAY R.
PA   (DEAN/) DEAN N M.
PA   (MONI/) MONIA B P.
PA   (NERO/) NERO P.
PA   (GAAR/) GAARDE W A.
XX
PI   Mckay R,  Dean NM,  Monia BP,  Nero P,  Gaarde WA;
XX
DR   WPI; 2003-311908/30.
XX
PT   New oligonucleotides which hybridizes to, and modulates the expression of
PT   Jun N-terminal kinase, useful for treating a disease or condition
PT   characterized by a reduction in apoptosis, e.g. prostate cancer,
PT   inflammation or fibrosis.
XX
PS   Example 7; Page 36; 69pp; English.
XX
CC   The invention relates to an oligonucleotide (antisense, AS) comprising 8-
CC   30 nucleotides connected by covalent linkages, where the oligonucleotide
CC   has a sequence specifically hybridisable with a nucleic acid encoding a
CC   Jun N-terminal kinase (JNK) protein and modulates the expression of the
CC   JNK protein. Also included are a pharmaceutical composition comprising
CC   the AS oligonucleotide (or its bioequivalent, and a pharmaceutical
CC   carrier), treating an animal having/suspected of having/prone to having a
CC   hyperproliferative disease (by administering to a prophylactic or
CC   therapeutic amount of the composition of the AS oligonucleotide),
CC   modulating the expression of a JNK protein in cells or tissues by
CC   contacting the cells or tissues with the AS oligonucleotide, modulating
CC   the cell cycle progression (or the phosphorylation of a protein
CC   phosphorylated by a JNK protein, or expression of a cellular protein that
CC   promotes one or more metastatic events in cultured cells or the cells of
CC   an animal) by administering the oligonucleotide to the cells, inhibiting
CC   the growth of a tumour in an animal by administering the oligonucleotide,
CC   inducing apoptosis in a cell by contacting a cell with an AS
CC   oligonucleotide for JNK2 and treating a human having a disease or
CC   condition associated with a JNK protein or characterised by a reduction
CC   in apoptosis by administering a prophylactic or therapeutic amount of the
CC   AS oligonucleotide. The antisense oligonucleotide is useful for treating
CC   a disease or condition characterised by a reduction in apoptosis, such as
CC   prostate cancer or prostate tumour, inflammation, fibrosis or fibrotic
CC   disease or condition (e.g. fibrotic scarring, peritoneal adhesions, lung
CC   fibrosis or conjunctival scarring), hyperproliferative disease or
CC   condition, such as cancer. The antisense oligonucleotides may also be
CC   used as research agents and diagnostic aids, to detect the presence of
CC   JNK protein-specific nucleic acids in a cell or tissue sample, and to
CC   study the function of one or more genes in the animal. The present
CC   sequence is an antisense oligonucleotide targeting a rat JNK sequence.
XX
SQ   Sequence 20 BP; 7 A; 4 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1457 GGAGACCAGAGTCCAGC 1473
              ||||||| |||| |||
Db          3 GGAGACCAAAGTCGAGC 19


RESULT 4760
ABZ58576/c
ID   ABZ58576 standard; DNA; 20 BP.
XX
AC   ABZ58576;
XX
DT   13-MAY-2003  (first entry)
XX
DE   Chitinase YM-3 forward PCR primer.
XX
KW   Chitinase; YM-3; enzyme; mouse; transgenic animal; inhibitor;
KW   antiinflammatory; gastrointestinal; dermatological; antiallergic;
KW   antiasthmatic; PCR; primer; ss.
XX
OS   Mus sp.
XX
PN   WO2003009808-A2.
XX
PD   06-FEB-2003.
XX
PF   23-JUL-2002; 2002WO-US023516.
XX
PR   24-JUL-2001; 2001US-0307432P.
XX
PA   (UYYA ) UNIV YALE.
PA   (ELIA/) ELIAS J A.
PA   (ZHUZ/) ZHU Z.
XX
PI   Elias JA,  Zhu Z;
XX
DR   WPI; 2003-289788/28.
XX
PT   Treating an inflammatory disease associated with increased levels of
PT   chitinase and chitinase-like molecules, such as chronic obstructive
PT   pulmonary disease, pneumonia, inflammatory bowel disease, emphysema and
PT   atopic dermatitis.
XX
PS   Example; Page 51; 100pp; English.
XX
CC   The present sequence is a forward primer for the mammalian chitinase YM-3
CC   gene. It was used with the reverse primer given in ABZ58577 in an RT-PCR
CC   to determine YM-3 mRNA levels in mice. In lung RNA from non-transgenic
CC   animals, YM mRNA was at or near the lower sensitivity levels of the
CC   assay. In transgenic mice constitutively expressing interleukin-13 (IL-
CC   13), YM mRNA was detected in 1- to 3-month old animals. The invention
CC   provides methods for treating or preventing an inflammatory disease in a
CC   mammal (human), where the disease is associated with an increased level
CC   of a chitinase-like molecule (e.g. YM-3) or interleukin-13, or with a Th2
CC   inflammatory response. The methods involve the administration of an
CC   inhibitor of a chitinase-like molecule, such as a chemical compound,
CC   antibody, ribozyme or antisense nucleic acid. The inflammatory disease is
CC   asthma, chronic obstructive pulmonary disease, interstitial lung disease,
CC   chronic obstructive lung disease, chronic bronchitis, eosinophilic
CC   bronchitis, eosinophilic pneumonia, pneumonia, inflammatory bowel
CC   disease, atopic dermatitis, atopy, allergy, allergic rhinitis, idiopathic
CC   pulmonary fibrosis, scleroderma or emphysema (all claimed). Methods are
CC   also provided for identifying a compound useful for treating an
CC   inflammatory disease, using e.g. a transgenic mouse expressing IL-13
XX
SQ   Sequence 20 BP; 7 A; 5 C; 1 G; 7 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
```

```
Qy       2682 GGGTGAAATGGAGATTT 2698
              | || ||||||||||||
Db         20 GTGTCAAATGGAGATTT 4
```

RESULT 4761
AAD55426
ID AAD55426 standard; DNA; 20 BP.
XX
AC AAD55426;
XX
DT 07-AUG-2003 (first entry)
XX
DE Human FGFR-3 antisense oligonucleotide, ISIS #125105.
XX
KW Human; antisense; fibroblast growth factor receptor 3; prophylaxis;
KW developmental disorder; hyperproliferative disorder; antisense therapy;
KW FGFR-3; ACH; JTK4; CEK2; cancer; phosphorothioate; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX

FH	Key	Location/Qualifiers
FT	modified_base	1. .20
FT		/*tag= a
FT		/mod_base= OTHER
FT		/note= "Phosphorothioate backbone; All cytidine residues
FT		are 5-methylcytidines"
FT	modified_base	1. .5
FT		/*tag= b
FT		/mod_base= OTHER
FT		/note= "2'-methoxyethyl (2'-MOE) nucleotides"
FT	modified_base	16. .20
FT		/*tag= c
FT		/mod_base= OTHER
FT		/note= "2 -methoxyethyl (2'-MOE) nucleotides"

XX
PN WO2003023004-A2.
XX
PD 20-MAR-2003.
XX
PF 06-SEP-2002; 2002WO-US028549.
XX
PR 10-SEP-2001; 2001US-00953047.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Wyatt JR;
XX
DR WPI; 2003-313244/30.
XX
PT Novel compound targeted to a nucleic acid molecule encoding fibroblast
PT growth factor receptor 3, useful for inhibiting the expression of the
PT receptor and for treating an animal having cancer or developmental
PT disorder.
XX
PS Claim 3; Page 78; 120pp; English.
XX
CC The invention relates to antisense compounds targetted to a nucleic acid
CC molecule encoding fibroblast growth factor (FGF) receptor 3 (also known
CC as FGFR-3, ACH, JTK4 and CEK2) to inhibit its expression. Antisense
CC compounds of the invention are useful for treating diseases or conditions
CC associated with FGFR-3 such as developmental disorders or
CC hyperproliferative disorders, especially cancer of colorectal, bladder,
CC bone, lung, cervical, breast or skin. They are useful as research
CC reagents, therapeutics, prophylaxis, kits and diagnostics, and as tools
CC in differential and/or combinatorial analyses to elucidate expression
CC patterns of a portion of the genes expressed within cells and tissues.
CC They are also useful in antisense therapy. The present sequence is an
CC antisense oligonucleotide targetted to human FGFR-3
XX
SQ Sequence 20 BP; 2 A; 8 C; 8 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       444 CGGCGCCCACAGGCAGC 460
             ||||| || ||||||||
Db         2 CGGCGTCCTCAGGCAGC 18
```

RESULT 4762
ABX12687/c
ID ABX12687 standard; DNA; 20 BP.
XX
AC ABX12687;
XX
DT 10-MAY-2003 (first entry)
XX
DE Human IL-4/IL-13 receptor DNA, antisense oligonucleotide #7.
XX
KW Human; inflammation; 2'6'-diaminopurine; DAP; antisense therapy;
KW DAP-modified oligonucleotide; pulmonary disease; respiratory disease;
KW neurological disease; cardiovascular disease; rheumatological disease;
KW digestive disease; cutaneous disease; ophthalmological disease;
KW urinary system disease; pathogen infection; genetic disease; cancer;
KW airway; nose; pulmonary fibrosis; adult respiratory distress syndrome;
KW cystic fibrosis; chronic obstructive lung disease; chronic bronchitis;
KW eosinophilic bronchitis; asthma; allergy; allergic rhinitis; sinusitis;
KW hypereosinophilia; cardiant; ophthalmological; cytostatic; antiasthmatic;
KW antiallergic; antiinflammatory; immunosuppressive; atopic disease;
KW neoplastic cell proliferation; antisense; IL-4; IL-13;
KW interleukin-4 receptor; interleukin-13 receptor; ss.
XX
OS Homo sapiens.
XX
PN WO2003004511-A2.
XX
PD 16-JAN-2003.
XX
PF 08-JUL-2002; 2002WO-CA001046.
XX
PR 06-JUL-2001; 2001US-0303071P.
XX
PA (TOPI-) TOPIGEN PHARM INC.
XX
PI Renzi P, Allam M, Allakhverdi Z;
XX
DR WPI; 2003-247944/24.
XX
PT Increasing in vivo efficacy of a nucleic acid molecule that is
PT administered to a mammal for inhibiting inflammation in mammals, involves
PT incorporating into the nucleic acid molecule at least one nucleotide
PT substitute.
XX
PS Claim 28; Page 11; 63pp; English.
XX
CC The present invention relates to a method for increasing the in vivo
CC efficacy of oligonucleotides and inhibiting inflammation. The
CC oligonucleotides comprise at least one nucleotide substitute of 2'6'-
CC diaminopurine (DAP) and/or its analogue. The DAP nucleotide substitutions
CC are useful for increasing in vivo efficacy of a nucleic acid molecule
CC that is administered to a mammal. The DAP-modified oligonucleotides are
CC useful in antisense therapy for treating and/or preventing
CC pulmonary/respiratory diseases, neurological diseases, cardiovascular
CC diseases, rheumatological diseases, digestive diseases, cutaneous
CC diseases, ophthalmological diseases, urinary system diseases, pathogen
CC infections, genetic diseases, general inflammation and cancers. The
CC respiratory system disease is a sickness associated with an inflammation
CC of the lungs, the airways and/or the nose. The respiratory system disease
CC is selected from pulmonary fibrosis, adult respiratory distress syndrome,
CC cystic fibrosis, chronic obstructive lung disease, chronic bronchitis,
CC eosinophilic bronchitis, asthma, allergy, allergic rhinitis, sinusitis
CC and hypereosinophilia. The DAP-modified oligonucleotides are more stable
CC in the body, more effective, and less toxic than standard antisense

```
CC   oligonucleotides. DAP or its analogues are more effective than other
CC   substitutes of adenosine. ABX12681-ABX12698 represent antisense
CC   oligonucleotides for treating or preventing atopic diseases and
CC   neoplastic cell proliferation
XX
SQ   Sequence 20 BP; 0 A; 16 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 GCGGCGGGGGCGGCGGC 67
              | |||||||||||| |||
Db         18 GGGGCGGGGGCGGGGGC 2


RESULT 4763
ACA60924/c
ID   ACA60924 standard; DNA; 20 BP.
XX
AC   ACA60924;
XX
DT   11-AUG-2003  (first entry)
XX
DE   Caenorhabditis elegans SUR-8 exon 1 amplification primer #1.
XX
KW   SUR-8; Ras; PCR; cancer; Ras signalling; cell differentiation; ss;
KW   cell proliferation; cell growth; primer; Ras suppressor.
XX
OS   Caenorhabditis elegans.
XX
PN   US6506889-B1.
XX
PD   14-JAN-2003.
XX
PF   19-MAY-1998;   98US-00081149.
XX
PR   19-MAY-1998;   98US-00081149.
XX
PA   (UYTE-) UNIV TECHNOLOGY CORP.
XX
PI   Han M,  Sieburth D;
XX
DR   WPI; 2003-415431/39.
XX
PT   New nucleotide sequences encoding a suppressor of ras-8 protein, useful
PT   as targets for screening anticancer drugs that can alter Ras signaling,
PT   and the physiological effects of Ras on cell growth, differentiation and
PT   proliferation.
XX
PS   Claim 7; Col 41; 67pp; English.
XX
CC   The invention relates to an isolated nucleotide sequence encoding a
CC   suppressor of ras-8 (SUR-8) protein. Ras proteins are membrane bound
CC   GTpases. The nucleotide sequences are useful as targets for screening
CC   drugs e.g. anticancer drugs, that can alter Ras signalling and the
CC   physiological effects of Ras on cell growth, differentiation and
CC   proliferation. The present sequence represents the Caenorhabditis elegans
CC   SUR-8 exon 1 amplification primer #1
XX
SQ   Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2210 ATGGGAGACTCTTTGAA 2226
              ||| |||||||| |||
Db         17 ATGAGAGACTCTTGGAA 1


RESULT 4764
ACF39518/c
ID   ACF39518 standard; DNA; 20 BP.
XX
AC   ACF39518;
XX
DT   26-SEP-2003  (first entry)
XX
DE   BARCODE-MAT HPV related GPVP1 probe HPV33L1.
XX
KW   Simultaneous detection; multiple target nucleic acid molecule;
KW   biological sample; Exonuclease I; PCR; human papillomavirus; HPV;
KW   BARCODE-MT; acute lymphoblastic leukaemia; cancer; assay;
KW   bead array coded detection of multiple target; microarray;
KW   targeted genetic risk-stratification; primer; probe; ss.
XX
OS   Human papillomavirus.
OS   Synthetic.
XX
PN   WO2003054149-A2.
XX
PD   03-JUL-2003.
XX
PF   06-DEC-2002; 2002WO-US039223.
XX
PR   07-DEC-2001; 2001US-0338442P.
PR   05-NOV-2002; 2002US-0423793P.
XX
PA   (UYMA-) UNIV MASSACHUSETTS.
XX
PI   Pihan G;
XX
DR   WPI; 2003-559133/52.
XX
PT   Simultaneously detecting the presence of multiple target nucleic acid
PT   molecules in a biological sample for optimizing risk-adapted therapy for
PT   a disorder by treating the enriched target nucleic acid molecules with
PT   Exonuclease I.
XX
PS   Example 2; Fig 7; 41pp; English.
XX
CC   The present invention describes a method for simultaneously detecting the
CC   presence of multiple target nucleic acid molecules in a biological sample
CC   comprising: (a) isolating and enriching target nucleic acid molecules
CC   from the biological sample; (b) treating the enriched target nucleic acid
CC   molecules with Exonuclease I; (c) performing linear PCR on the
CC   Exonuclease I treated enriched target nucleic acid molecule to produce
CC   linear PCR product where only a single primer is used; (d) obtaining
CC   beads coupled to an oligonucleotide molecule complementary to the
CC   amplified target nucleic acid molecules; (e) forming a mixture by mixing
CC   the beads and the enriched linear PCR product nucleic acid; (f) forming a
CC   reacted sample by incubating the mixture under conditions where if the
CC   enriched linear PCR product includes the target nucleic acid molecule,
CC   the enriched linear PCR product will hybridise to the oligonucleotide
CC   molecule; (g) analysing the reacted sample by determining the
CC   fluorescence of each bead analysed; and (h) detecting a level of
CC   fluorescence on the beads, where the level of fluorescence corresponds to
CC   a level of a target nucleic acid molecule in the biological sample. The
CC   method for simultaneously detecting the presence of multiple target
CC   nucleic acid molecules in a biological sample or for optimising risk-
CC   adapted therapy for a disorder associated with the target nucleic acid.
CC   ACF39439 to ACF39597 represent primers and probes used in the
CC   exemplification of the present invention
XX
SQ   Sequence 20 BP; 11 A; 5 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2347 TGGAGGTTCTGTATTTT 2363
              ||||||| |||| ||||
Db         17 TGGAGGTACTGTTTTTT 1
```

```
RESULT 4765
ACD99446
ID   ACD99446 standard; DNA; 20 BP.
XX
AC   ACD99446;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #132.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 12; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db          2 CGGCCGGCCGGCCGGCC 18


RESULT 4766
ACD99446/c
ID   ACD99446 standard; DNA; 20 BP.
XX
AC   ACD99446;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #132.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 12; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4767
ACD05095/c
ID   ACD05095 standard; DNA; 20 BP.
XX
AC   ACD05095;
XX
DT   05-AUG-2003  (first entry)
XX
DE   Tumour necrosis factor alpha antisense oligonucleotide #98.
XX
KW   Tumour necrosis factor alpha; TNF-alpha; antiinflammatory; antirheumatic;
KW   antiarthritic; antidiabetic; dermatological; hepatotropic; antiasthmatic;
KW   inflammatory disorder; inflammatory bowel disease; Crohn's disease;
KW   colitis; rheumatoid arthritis; diabetes; pancreatitis;
KW   multiple sclerosis; atopic dermatitis; asthma; hepatitis;
KW   antisense technology; ss.
XX
OS   Synthetic.
XX
PN   US2003022848-A1.
XX
PD   30-JAN-2003.
XX
PF   02-APR-2001; 2001US-00824322.
XX
PR   05-OCT-1998;   98US-00166186.
PR   18-MAY-1999;   99US-00313932.
XX
PA   (BAKE/) BAKER B F.
PA   (BENN/) BENNETT C F.
```

```
PA   (BUTL/) BUTLER M M.
PA   (SHAN/) SHANAHAN W R.
XX
PI   Baker BF,  Bennett CF,  Butler MM,  Shanahan WR;
XX
DR   WPI; 2003-447433/42.
XX
PT   Treating inflammatory disorders such as inflammatory bowel disease,
PT   Crohn's disease or rheumatoid arthritis, in a subject, by administering
PT   oligonucleotide which inhibits expression of human tumor necrosis factor
PT   alpha.
XX
PS   Example 8; Page 24; 142pp; English.
XX
CC   The invention describes a method of treating an inflammatory disorder in
CC   an individual, comprising administering to the individual an
CC   oligonucleotide upto 30 nucleotides in length complementary to a nucleic
CC   acid molecule encoding human tumor necrosis factor (TNF)-alpha. The
CC   method is useful for treating an inflammatory disorder such as
CC   inflammatory bowel disease, Crohn's disease, colitis or rheumatoid
CC   arthritis, in an individual. The method is also useful for treating
CC   diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma,
CC   and hepatitis in an individual. This sequence represents an antisense
CC   oligonucleotide used to modulate expression of tumour necrosis factor
CC   alpha (TNF-alpha)
XX
SQ   Sequence 20 BP; 1 A; 5 C; 8 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        453 CAGGCAGCCAGCAGCAG 469
              ||| |||||||||| ||
Db         20 CAGCCAGCCAGCAGAAG 4


RESULT 4768
ADB36516
ID   ADB36516 standard; DNA; 20 BP.
XX
AC   ADB36516;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #130.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 7; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db          2 CGGCCGGCCGGCCGGCC 18


RESULT 4769
ADB36516/c
ID   ADB36516 standard; DNA; 20 BP.
XX
AC   ADB36516;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #130.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 7; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 0 A; 10 C; 10 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        520 CGGGCGCCCGGCCGGCC 536
              ||| || ||||||||||
Db         19 CGGCCGGCCGGCCGGCC 3


RESULT 4770
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ADB74233
ID   ADB74233 standard; DNA; 20 BP.
XX
AC   ADB74233;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human GPR34 PCR primer, SEQ ID 5.
XX
KW   Nootropic; Neuroprotective; Immunomodulator; Antiinflammatory; Antiulcer;
KW   GPR34; neurodegenerative disease; immunopathy; inflammatory disease;
KW   peptic ulcer; nerve growth factor; human; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003052414-A1.
XX
PD   26-JUN-2003.
XX
PF   13-DEC-2002; 2002WO-JP013096.
XX
PR   14-DEC-2001; 2001JP-00382174.
PR   09-JUL-2002; 2002JP-00200556.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Mori M,  Chikatsu T,  Sato S,  Nagi T,  Sugo T;
XX
DR   WPI; 2003-636554/60.
XX
PT   Screening compounds used for treating neurodegenerative diseases,
PT   immunopathy, inflammatory diseases and peptic ulcer involves using
PT   protein and ligand.
XX
PS   Example 1; Page 150; 169pp; Japanese.
XX
CC   The present invention relates to a method for screening compounds or
CC   their salts capable of changing the binding properties of a GPR34 protein
CC   to a ligand capable of binding specifically to the protein. The method is
CC   useful for screening compounds used for treating neurodegenerative
CC   diseases, immunopathy, inflammatory diseases and peptic ulcers, and as
CC   enhancers of nerve growth factor. The present sequence is a PCR primer,
CC   used in an example from the invention.
XX
SQ   Sequence 20 BP; 4 A; 6 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        457 CAGCCAGCAGCAGGCCT 473
              ||| ||||||| |||||
Db          2 CAGTCAGCAGCTGGCCT 18


RESULT 4771
ADC65850
ID   ADC65850 standard; DNA; 20 BP.
XX
AC   ADC65850;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Mouse TGF-beta receptor II targeted antisense oligonucleotide #49.
XX
KW   mouse; antisense oligonucleotide;
KW   transforming growth factor beta receptor II; TGF-beta receptor II;
KW   hyperproliferative disorder; breast cancer; autoimmune disorder;
KW   rheumatoid arthritis; 2'-O-methoxyethyl gapmer;
KW   phosphorothioate backbone; ss; murine.
XX
OS   Mus musculus.
XX
PN   WO2003000656-A2.
XX
PD   03-JAN-2003.
XX
PF   19-JUN-2002; 2002WO-US019665.
XX
PR   21-JUN-2001; 2001US-00888361.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Murray SF,  Wyatt JR;
XX
DR   WPI; 2003-175279/17.
XX
PT   New compound having a sequence targeted to a nucleic acid encoding
PT   Transforming growth factor beta-receptor II, useful for preparing a
PT   composition for treating hyperproliferative disorder e.g., lung, liver,
PT   colon or gastric cancer.
XX
PS   Claim 3; SEQ ID NO 146; 141pp; English.
XX
CC   The invention comprises antisense oligonucleotides that are targeted to
CC   the nucleic acid encoding transforming growth factor beta (TGF-beta)
CC   receptor II. The antisense oligonucleotides of the invention are useful
CC   for treating: hyperproliferative disorders (e.g. breast cancer), or an
CC   autoimmune disorder (e.g. rheumatoid arthritis). The present DNA sequence
CC   represents a 2'-O-methoxyethyl gapmer oligonucleotide with a
CC   phosphorothioate backbone that is targeted to mouse TGF-beta receptor II.
XX
SQ   Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        624 CACACGCCCTGGATGCC 640
              ||||||  |||||||||
Db          1 CACACGATCTGGATGCC 17


RESULT 4772
AAD61201
ID   AAD61201 standard; DNA; 20 BP.
XX
AC   AAD61201;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human Ship-1 antisense oligonucleotide ISIS #168282.
XX
KW   Human; Ship-1; SH2-containing phosphatidylinositol phosphatase-1; INPP5D;
KW   insensitivity to apoptotic signal; developmental disorder; inflammation;
KW   immunosuppressive; autoimmune disorder; antisense therapy; antisense;
KW   phosphorothioate backbone; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone; All cytidines are 5-
FT                    methyl cytidines"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) nucleotides"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) nucleotides"
XX
```

PN US2003114401-A1.
XX
PD 19-JUN-2003.
XX
PF 06-DEC-2001; 2001US-00003919.
XX
PR 06-DEC-2001; 2001US-00003919.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Freier SM;
XX
DR WPI; 2003-801302/75.
XX
PT Antisense compounds targeted to nucleic acid molecule encoding Ship-1,
PT useful for treating diseases associated with expression of Ship-1, such
PT as autoimmune and developmental disorders.
XX
PS Claim 3; Page 25; 0pp; English.
XX
CC The present invention provides antisense compounds targetted to nucleic
CC acid molecule encoding Ship-1 (also known as SH2-containing
CC phosphatidylinositol phosphatase-1 and INPP5D) to modulate/inhibit the
CC expression of Ship-1. The invention is useful in treatment of diseases
CC such as insensitivity to apoptotic signals, autoimmune disorders,
CC developmental disorders and inflammatory disorders. The present sequence
CC is human Ship-1 antisense oligonucleotide
XX
SQ Sequence 20 BP; 1 A; 7 C; 3 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1785 CCCCATTCTTTCCTTCT 1801
|||||| |||||||||
Db 2 CCCCATGTTTTCCTTCT 18

RESULT 4773
ADE43707/c
ID ADE43707 standard; DNA; 20 BP.
XX
AC ADE43707;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human KNSL1 sequencing primer, SEQ ID 312.
XX
KW Neurodegenerative disease; uPA; SNCG; IDE; KNSL1; LIPA; TNFRSF6;
KW Alzheimer's disease; neuroprotective; nootropic; gene therapy;
KW Chromosome 10; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003054143-A2.
XX
PD 03-JUL-2003.
XX
PF 25-OCT-2002; 2002WO-US034679.
XX
PR 25-OCT-2001; 2001US-0339525P.
PR 08-NOV-2001; 2001US-0336929P.
PR 08-NOV-2001; 2001US-0338010P.
PR 09-NOV-2001; 2001US-0338363P.
PR 04-DEC-2001; 2001US-0337052P.
PR 28-MAR-2002; 2002US-0368919P.
XX
PA (NEUR-) NEUROGENETICS INC.
PA (GEHO) GEN HOSPITAL CORP.
XX
PI Becker KD, Velicelebi G, Elliott KJ, Wang X, Tanzi RE, Bertram L;
PI Saunders AJ, Mullin KM, Sampson AJ, Blacker DL;
XX
DR WPI; 2003-559131/52.
XX
PT Determining a predisposition for or the occurrence of neurodegenerative
PT disease, e.g. Alzheimer's disease by detecting in a target nucleic acid
PT the presence or absence of an allelic variant of one or more polymorphic
PT regions.
XX
PS Example 3; Page 291; 848pp; English.
XX
CC The present invention relates to a method (M1) for determining a
CC predisposition for or the occurrence of neurodegenerative disease in a
CC subject. The method comprises detecting in a target nucleic acid obtained
CC from the subject the presence or absence of an allelic variant of one or
CC more polymorphic regions of one or more genes selected from uPA
CC (Urokinase plasminogen activator), SNCG (gamma-synuclein), IDE (insulin-
CC degrading enzyme), KNSL1 (Kinesin-like protein 1), LIPA (lysosomal acid
CC lypase), and TNFRSF6 (Tumour Necrosis Factor Receptor-SF6), where the
CC presence of at least one of the allelic variant of one or more
CC polymorphic regions is indicative of a predisposition for or the
CC occurrence of neurodegenerative disease. The genes are all located on
CC chromosome 10. M1 is useful for determining a predisposition for or the
CC occurrence of, and for treating neurodegenerative disease, particularly
CC Alzheimer's disease. The present sequence is a PCR primer, which was used
CC in the method of the invention.
XX
SQ Sequence 20 BP; 8 A; 5 C; 5 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.3e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2710 CTCTGCCTGTAAATGTT 2726
||| |||||||| ||||
Db 19 CTCGGCCTGTAACTGTT 3

RESULT 4774
ADE14470
ID ADE14470 standard; DNA; 20 BP.
XX
AC ADE14470;
XX
DT 29-JAN-2004 (first entry)
XX
DE HSD11B1 antisense oligonucleotide seq id 72.
XX
KW osteopathic; antidepressant; anorectic; antidiabetic;
KW antiarteriosclerotic; antilipemic; antisense-therapy;
KW hydroxysteroid 11-beta dehydrogenase 1; osteoporosis; depression;
KW metabolic disorder; obesity; HSD11B1; diabetes; atherosclerosis;
KW hyperlipidaemia; antisense technology; mouse; ss.
XX
OS Mus sp.
XX
PN US2003198965-A1.
XX
PD 23-OCT-2003.
XX
PF 19-APR-2002; 2002US-00126355.
XX
PR 19-APR-2002; 2002US-00126355.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Freier SM;
XX
DR WPI; 2003-852782/79.
XX
PT New antisense compounds useful for treating disorders associated with
PT hydroxysteroid 11-beta dehydrogenase 1 expression, such as osteoporosis,
PT depression and metabolic disorders like obesity, diabetes and
PT atherosclerosis.

```
XX
PS   Example 16; SEQ ID NO 72; 53pp; English.
XX
CC   The invention describes a compound (I) 8-80 nucleobases in length
CC   targeted to a nucleic acid molecule encoding hydroxysteroid 11-beta
CC   dehydrogenase 1, inhibiting expression of hydroxysteroid 11-beta
CC   dehydrogenase 1. The methods and compositions of the present invention
CC   are useful for treating disorders associated with hydroxysteroid 11-beta
CC   dehydrogenase 1 expression, such as osteoporosis, depression and
CC   metabolic disorders like obesity, diabetes, atherosclerosis and
CC   hyperlipidaemia. This sequence represents an antisense oligonucleotide
CC   used to control the expression of mouse hydroxysteroid 11-beta
CC   dehydrogenase 1.
XX
SQ   Sequence 20 BP; 4 A; 5 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 20;
  Best Local Similarity   88.2%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2454 ACATGGGATCCAATTTT 2470
              ||||||| ||| |||||
Db          1 ACATGGGCTCCCATTTT 17


RESULT 4775
AAZ26714
ID   AAZ26714 standard; DNA; 21 BP.
XX
AC   AAZ26714;
XX
DT   30-NOV-1999  (first entry)
XX
DE   Human polymorphic region 903.
XX
KW   Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW   cell viability; loss of heterozygosity; precancerous condition; ASI;
KW   allele specific inhibitor; somatic cell; diagnosis; prevention;
KW   atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW   dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW   graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS   Homo sapiens.
XX
PN   WO9841648-A2.
XX
PD   24-SEP-1998.
XX
PF   19-MAR-1998;   98WO-US005419.
XX
PR   20-MAR-1997;   97US-0041057P.
XX
PA   (VARI-) VARIAGENICS INC.
XX
PI   Housman D,  Ledley FD,  Stanton VP;
XX
DR   WPI; 1998-521232/44.
XX
PT   Identifying target genes for allele-specific drugs - used for diagnosis,
PT   prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT   dysplastic lesions, endometriosis or graft versus host disease.
XX
PS   Disclosure; Fig 7; 605pp; English.
XX
CC   This invention describes a novel method for identifying an inhibitor
CC   potentially useful for treatment of cancer, where the inhibitor is active
CC   on a gene vital for cell growth or viability, and where the gene is
CC   subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC   used for preventing the development of cancer in a patient having a
CC   precancerous condition, by administering to the patient a first allele
CC   specific inhibitor (ASI) targeted to an allele of a first essential gene
CC   present in cells of the precancerous condition, where the normal somatic
CC   cells of the patient are heterozygous for the first gene, the inhibitor
CC   is active on at least one but less than all allelic forms of the gene
CC   present in a population and targets only one allelic form present in the
CC   normal somatic cells, and the first gene. The products and methods can be
CC   used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC   cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC   lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC   graft versus host disease. The method can also be used to remove
CC   malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC   human polymorphic sites described in the method of the invention
XX
SQ   Sequence 21 BP; 15 A; 3 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              || | ||||||||||||
Db          5 AACATAAAAAAAAAAAA 21


RESULT 4776
AAQ10724
ID   AAQ10724 standard; DNA; 21 BP.
XX
AC   AAQ10724;
XX
DT   08-APR-1991  (first entry)
XX
DE   Mutagenising oligonucleotide used in prodn. of EPO mutein 47.
XX
KW   Erythropoietin; erythrocytes; renal anaemia; ss.
XX
OS   Synthetic.
XX
PN   EP409113-A.
XX
PD   23-JAN-1991.
XX
PF   14-JUL-1990;   90EP-00113505.
XX
PR   20-JUL-1989;   89DE-03923963.
XX
PA   (BEHW ) BEHRINGWERKE AG.
XX
PI   Fibi M,  Zettlmeiss G,  Kupper H;
XX
DR   WPI; 1991-023737/04.
XX
PT   Human erythropoietin mutants and DNA encoding them - for stimulation of
PT   erythroid precursor cells and binding of erythrocytes to receptors.
XX
PS   Disclosure; Page 10; 22pp; German.
XX
CC   This oligonucleotide is used in the prodn. of an erythropoietin mutein,
CC   EPO 47 which has 2 substitutions in the wild-type sequence (Arg 76 and
CC   Gln 78 are replaced by Ala). This mutein has diff- ering biological
CC   properties from wild-type EPO and is useful in the treatment of renal
CC   anaemia and conditions where it is necce- ssary to change erythrocyte no.
CC   and/or improve erythrocyte qual- ity. Hypertensive activity is also
CC   modified. See also AAQ10697-Q10723 and AAQ10725-Q10726
XX
SQ   Sequence 21 BP; 3 A; 10 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        479 GGCCGCCAGAGCCAGGA 495
              ||||||| | |||||||
Db          4 GGCCGCCCGCGCCAGGA 20
```

```
RESULT 4777
AAQ22345
ID   AAQ22345 standard; DNA; 21 BP.
XX
AC   AAQ22345;
XX
DT   08-JUL-1992  (first entry)
XX
DE   Antisense oligonucleotide #38 targetted to ELAM-1 3'-UTR (2760-2788).
XX
KW   Human; endothelial leukocyte adhesion molecule-1; inhibitor;
KW   phosphorothioate bond; triple helix; translation initiation; ss.
XX
OS   Synthetic.
XX
PN   WO9203139-A.
XX
PD   05-MAR-1992.
XX
PF   23-JUL-1991;   91WO-US005209.
XX
PR   14-AUG-1990;   90US-00567286.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Mirabelli CK,  Mira;
XX
DR   WPI; 1992-096579/12.
XX
PT   New oligonucleotides hybridisable to cell adhesion modulators - for
PT   treatment and diagnosis of e.g. allograft rejection, cancer, AIDS etc.
PT   and diagnosis of intercellular adhesion dysfunction.
XX
PS   Example 12; Page 50; 75pp; English.
XX
CC   Oligonucleotide #38 was designed to hybridise to the 3'-UTR of human ELAM
CC   -1 and was synthesised in the phosphorothioate form. It was one of 12
CC   different antisense oligonucleotides (AAQ22656-Q22662 and AAQ22342-
CC   Q22346) which target the ELAM-1 sequence. The most potent modulator of
CC   ELAM-1 activity was hybridisable with specific sequences in the 5'-UTR of
CC   ELAM-1 (i.e. AAQ22661)
XX
SQ   Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||  |
Db          5 TGAGGGGGTAATCTACA 21


RESULT 4778
AAQ28771/c
ID   AAQ28771 standard; DNA; 21 BP.
XX
AC   AAQ28771;
XX
DT   25-MAR-2003  (revised)
DT   26-FEB-1993  (first entry)
XX
DE   HLA Class II gene locus primer DRB30.
XX
KW   MHC genotype; human leukocyte antigen; major histocompatibility complex;
KW   automated determination; ss.
XX
OS   Synthetic.
XX
PN   WO9215711-A1.
XX
PD   17-SEP-1992.
XX
PF   04-MAR-1992;   92WO-US001675.
XX
PR   06-MAR-1991;   91US-00665960.
PR   18-FEB-1992;   92US-00833668.
XX
PA   (MINU ) UNIV MINNESOTA.
XX
PI   Santamaria P,  Boyce-Jacino MT,  Barbosa JJ,  Rich SS,  Faras AJ;
XX
DR   WPI; 1992-331755/40.
XX
PT   Fully automated determn. of MHC genotype - by isolating nucleic acid from
PT   sample, amplifying nucleic acid by PCR to sequence alleles and analysing
PT   sequenced prods.
XX
PS   Example; Page 20; 105pp; English.
XX
CC   The sequence is that of a primer used as part of a method for determining
CC   the major histocompatibility complex (MHC) genotype of a subject in a
CC   sample. The primer anneals to nucleotides 97-103 of HLA class II locus
CC   DRB1/3/4/5. See also AAQ28761-Q28800 and AAQ28811-Q28819. (Updated on 25-
CC   MAR-2003 to correct PN field.)
XX
SQ   Sequence 21 BP; 7 A; 5 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2652 CCTAAGGTGAGTGTGCA 2668
              ||||||||| |||| |
Db         21 CCTAAGGTGACTGTGTA 5


RESULT 4779
AAQ24706/c
ID   AAQ24706 standard; DNA; 21 BP.
XX
AC   AAQ24706;
XX
DT   25-MAR-2003  (revised)
DT   17-DEC-2001  (revised)
DT   10-NOV-1992  (first entry)
XX
DE   J-beta-1b primer.
XX
KW   Inv(7); PCR; polymerase chain reaction; ataxiatelangiectasia; AT;
KW   lymphoid malignancy; pesticide; herbicide; Nijmegan breakage syndrome;
KW   ss.
XX
OS   Synthetic.
XX
PN   USN7683685-N.
XX
PD   18-FEB-1992.
XX
PF   11-APR-1991;   91US-00683685.
XX
PR   11-APR-1991;   91US-00683685.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICE.
XX
PI   Kirsch IR,  Lipkowitz S,  Stern MH;
XX
DR   WPI; 1992-166775/20.
XX
PT   Identifying individuals at increased risk of lymphoid leukemia and
PT   lymphoma - using DNA from immune receptor locus capable of displaying
PT   genomic instability.
XX
PS   Disclosure; Page 15; 55pp; English.
XX
CC   The sequences given in AAQ24701-Q24713 are a set of PCR primers which are
```

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CC   complementary to a sequence within a 2000bp inversion of chromosome 7
CC   .This inversion (inv(7)(p14q35)) is found in normal people but patients
CC   suffering from the disease ataxiatelangiectasia (AT) have a 70-100 fold
CC   increase of the T-lymphocyte specific inversion inv(7). Using these
CC   sequences a screening test has been developed which can accurately
CC   measure lymphocyte-specific genomic instability and by extrapolation thus
CC   identifies individuals at increased risk for the development of lymphoid
CC   malignancy eg. after exposure to a pesticide or herbicide. This method
CC   can also be used for identifying (specifically pre-natal) an individual
CC   homozygous or heterozygous for AT and related syndromes (eg Nijmegan
CC   breakage syndrome) or for identifying carcinogenic compounds. (Note:
CC   Revised entry submitted to correct the patent number format of US
CC   Government-owned NTIS applications to prevent clashes with ongoing US
CC   granted patent numbers. For further information please visit the Derwent
CC   web site at www.derwent.com/dwpi/updates/ntis_us.html.) (Updated on 25-
CC   MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA
CC   field.)
XX
SQ   Sequence 21 BP; 6 A; 8 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        113 GGCTGGGGGGATCCTGG 129
              | || ||||||||||||
Db         17 GACTCGGGGGATCCTGG 1


RESULT 4780
AAT14900
ID   AAT14900 standard; cDNA to mRNA; 21 BP.
XX
AC   AAT14900;
XX
DT   18-JUL-1996  (first entry)
XX
DE   Primer 6 for 3' porcine zona pellucida gene amplification.
XX
KW   PZP-3; porcine zona pellucida 3; contraceptive vaccine; antigen;
KW   PZP-3(258); primer; PCR; polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   JP06179698-A.
XX
PD   28-JUN-1994.
XX
PF   15-DEC-1992;   92JP-00353992.
XX
PR   15-DEC-1992;   92JP-00353992.
XX
PA   (TOFU ) TONEN CORP.
XX
DR   WPI; 1994-245693/30.
XX
PT   Pig zona pellucida-3 related peptide(s) - useful as contraceptive vaccine
PT   antigen.
XX
PS   Example 1; Page 6; 14pp; Japanese.
XX
CC   AAT14897-99 were each used with AAT14900 to PCR amplify DNA 3' of the
CC   recombinant PZP-3(258) partial porcine zona pellucida 3 gene. A 300 bp
CC   PCR product (AAT14901) was generated by all 3 PCR reactions. The
CC   recombinant protein, PZP-3(258) (AAR96951) corresponds to residues 106-
CC   363 of PZP-3. Peptides wholly or partially related to PZP-3 (AAR96950),
CC   partic. between amino acids 106-363 (see AAR96951), are useful as
CC   contraceptive vaccine antigens for pigs. See AAT14895-908
XX
SQ   Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2161 TCTCCTTTTTTTTTTTT 2177
              ||  ||||||||||||||
Db          5 TCGACTTTTTTTTTTTT 21


RESULT 4781
AAQ55571
ID   AAQ55571 standard; DNA; 21 BP.
XX
AC   AAQ55571;
XX
DT   25-MAR-2003  (revised)
DT   17-AUG-1994  (first entry)
XX
DE   Sequence of synthetic triplex forming oligo (TFO) B-133-54, anti-HSV 2
DE   TFO.
XX
KW   Triplex forming oligonucleotide; TFO; sequence specific binding; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    21
FT                   /*tag=  a
FT                   /label= G-cholesterol
XX
PN   WO9404550-A1.
XX
PD   03-MAR-1994.
XX
PF   17-AUG-1993;   93WO-US007743.
XX
PR   21-AUG-1992;   92US-00934065.
PR   23-APR-1993;   93US-00053040.
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Jayaraman K,  Vu H,  Zendegui J,  Hogan ME;
XX
DR   WPI; 1994-083097/10.
XX
PT   New method of binding synthetic triplex forming oligonucleotide - in
PT   which the nucleotide is modified with a lipophilic cpd. is useful in
PT   treatment of cell proliferative states and viral infections.
XX
PS   Example; Page 40; 86pp; English.
XX
CC   Triplex forming oligos (TFOs) bind to DNA in a site selective manner. The
CC   biological effect of a TFO is potentiated by modification with lipophilic
CC   cpds., selected from cholesterol, vitamin E and 1,2-di-O- hexadecyl-3-
CC   glyceryl. TFO-linker-cholesterol is used for the treatment of cell
CC   proliferative states (breast, lung and cervical cancers) and in
CC   infections by viruses (Herpes simplex virus type 2 and human
CC   immunodeficiency virus (HIV)). (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        106 GCTTGGGGGCTGGGGGG 122
              | ||||||| |||||||
Db          4 GGTTGGGGGGTGGGGGG 20


RESULT 4782
AAQ67230
ID   AAQ67230 standard; DNA; 21 BP.
```

```
XX
AC   AAQ67230;
XX
DT   25-MAR-2003  (revised)
DT   22-SEP-1994  (first entry)
XX
DE   Triple helix-forming oligonucleotide.
XX
KW   Triple helix; oligonucleotide; TFO; lipophile; cholesterol; Vitamin E;
KW   glyceryl; anticancer; antiviral; herpes simplex; HIV; human;
KW   immunodeficiency virus.
XX
OS   Synthetic.
XX
PN   WO9404550-A1.
XX
PD   03-MAR-1994.
XX
PF   17-AUG-1993;   93WO-US007743.
XX
PR   21-AUG-1992;   92US-00934065.
PR   23-APR-1993;   93US-00053040.
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Jayaraman K,  Vu H,  Zendegui J,  Hogan ME;
XX
DR   WPI; 1994-083097/10.
XX
PT   New method of binding synthetic triplex forming oligonucleotide - in
PT   which the nucleotide is modified with a lipophilic cpd. is useful in
PT   treatment of cell proliferative states and viral infections.
XX
PS   Claim 25; Page 40; 86pp; English.
XX
CC   The invention relates to a method of enhancing sequence specific binding
CC   of a synthetic triplex-forming oligonucleotide (TFO) involving the step
CC   of contacting the TFO with a cell. The TFO comprises a nucleotide
CC   sequence of at least 20 nucleotides including a G and a T, is chemically
CC   modified with a lipophilic compound and is capable of binding to a DNA
CC   duplex target to form a triple helix. The lipophilic compound is
CC   preferably cholesterol, vitamin E or 1,2-di-O-hexadecyl 3-glyceryl and is
CC   joined to the nucleotide via a linker. The TFO is useful medically for
CC   treating cell proliferative states such as breast, lung and cervical
CC   cancers, and for treating viral infections such as caused by Herpes
CC   simplex type 2 or HIV. The biological effect of the TFO is potentiated by
CC   modification with the lipophilic compound. The present sequence is one of
CC   9 specific nucleotide sequences disclosed for use in forming the TFO
CC   (AAQ67224 - AAQ67232). The TFO is formed by attaching cholesterol to the
CC   3' end. This TFO is active against HSV-2. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        106 GCTTGGGGGCTGGGGGG 122
              | ||||||| |||||||
Db          4 GGTTGGGGGGTGGGGGG 20


RESULT 4783
AAQ44571
ID   AAQ44571 standard; DNA; 21 BP.
XX
AC   AAQ44571;
XX
DT   25-MAR-2003  (revised)
DT   26-SEP-1994  (first entry)
XX
DE   Antisense oligonucleotide which targets human ELAM-1 3'-UTR.
XX
KW   Human endothelial leukocyte adhesion molecule; ELAM-1; cell adhesion;
KW   modulation; inflammation; psoriasis; malignant melanoma; inhibition;
KW   inflammatory bowel disease; antisense oligonucleotide; therapy; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .21
FT                   /*tag=  a
FT                   /note= "in phosphorothioate form"
XX
PN   WO9405333-A1.
XX
PD   17-MAR-1994.
XX
PF   27-AUG-1993;   93WO-US008101.
XX
PR   02-SEP-1992;   92US-00939855.
PR   21-JAN-1993;   93US-00007997.
PR   17-MAY-1993;   93US-00063167.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennet CF,  Mirabelli CK;
XX
DR   WPI; 1994-100869/12.
XX
PT   Oligo:nucleotide modulation of cell adhesion - used in the treatment of
PT   e.g. psoriasis, inflammatory bowel disease or malignant melanoma.
XX
PS   Example 12; Page 57; 101pp; English.
XX
CC   Antisense oligonucleotides which target human ELAM-1 were synthesised in
CC   the phosphorothioate form. Some of the oligonucleotides were found to
CC   inhibit ELAM-1 expression and so are useful to treat diseases which are
CC   modulated by changes in intercellular adhesion molecules. This sequence
CC   is designed to hybridise to nucleotides 2760-2788 of the 3'-untranslated
CC   region of human ELAM-1 coding sequence and is not one of the preferred
CC   inhibitory oligonucleotides. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||  |
Db          5 TGAGGGGGTAATCTACA 21


RESULT 4784
AAQ79210
ID   AAQ79210 standard; DNA; 21 BP.
XX
AC   AAQ79210;
XX
DT   25-MAR-2003  (revised)
DT   17-JUL-1995  (first entry)
XX
DE   Guanosine rich oligonucleotide used to treat viral infection.
XX
KW   Guanosine; tetrad; inhibition; replication; virus; treatment; therapy;
KW   infection; herpes simplex virus; human papilloma virus;
KW   Epstein-Barr virus; HIV, adenovirus; respiratory syncitial virus;
KW   hepatitis B virus; human cytomegalovirus; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
```

```
FT   misc_feature    31
FT                   /*tag=  a
FT                   /mod_base
FT                   /note= "Propanolamine group attached to this base."
XX
PN   WO9425037-A1.
XX
PD   10-NOV-1994.
XX
PF   25-APR-1994;   94WO-US004529.
XX
PR   23-APR-1993;   93US-00053027.
PR   28-OCT-1993;   93US-00145704.
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Rando RF,  Fennewald S,  Zendegui JG,  Ojwang JO,  Hogan ME;
XX
DR   WPI; 1994-357890/44.
XX
PT   Oligo-nucleotide(s) rich in guanosine which form guanosine tetrads - used
PT   to treat viral infections, e.g. herpes-virus and HIV.
XX
PS   Claim 41; Page 49; 101pp; English.
XX
CC   The oligonucleotides (See AAQ79201-52) can be used to treat viral
CC   infections. The oligonucleotides inhibit viral replication by forming
CC   guanosine tetrads which form a stabilised 3D structure. Preferred
CC   oligonucleotides contain at least 2 runs of at least 2 guanosine bases
CC   and may be capped at the 3' terminus with a modifier selected from
CC   polyamine, poly-L-lysine, cholesterol and propanolamine. They may also
CC   have a modified phosphodiester linkage or be modified to contain a
CC   phosphorothioate linkage. They are used to treat infections with viruses
CC   such as herpes simplex virus, human papilloma virus, Epstein-Barr virus,
CC   HIV, adenovirus, respiratory syncitial virus, hepatitis B virus or human
CC   cytomegalovirus. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       106 GCTTGGGGGCTGGGGGG 122
             | ||||||| |||||||
Db         4 GGTTGGGGGGTGGGGGG 20


RESULT 4785
AAQ56046
ID   AAQ56046 standard; DNA; 21 BP.
XX
AC   AAQ56046;
XX
DT   09-SEP-1994  (first entry)
XX
DE   Primer 5 to isolate feline zona pellucida FZP-3 coding sequence.
XX
KW   Cat; feline zona pellucida; FZP-3; antigen; contraceptive vaccine; PCR;
KW   polymerase chain reaction; primer; ss.
XX
OS   Synthetic.
XX
PN   JP06014784-A.
XX
PD   25-JAN-1994.
XX
PF   27-NOV-1992;   92JP-00341429.
XX
PR   29-NOV-1991;   91JP-00342317.
XX
PA   (TOFU ) TONEN CORP.
XX
DR   WPI; 1994-061479/08.
XX
PT   DNA encoding cat zona pellucida FZP-3 - useful as antigen in
PT   contraceptive vaccine and for sterilisation.
XX
PS   Example 1; Page 6; 19pp; Japanese.
XX
CC   The feline zona pellucida protein can be used as an antigen in the
CC   preparation of contraceptive vaccines for cats. Primers 1-8 (see AAQ56042
CC   -Q56049) were used to amplify cDNA coding for the FZP-3 protein
XX
SQ   Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2161 TCTCCTTTTTTTTTTT 2177
              ||  |||||||||||||
Db          5 TCGACTTTTTTTTTTT 21


RESULT 4786
AAQ70078
ID   AAQ70078 standard; DNA; 21 BP.
XX
AC   AAQ70078;
XX
DT   15-MAR-1995  (first entry)
XX
DE   CZP2(487-713) primer 6.
XX
KW   Canine; dog; zona pellucida; ZP; CZP2; contraceptive; vaccine; antigen;
KW   ss.
XX
OS   Synthetic.
XX
PN   JP06189766-A.
XX
PD   12-JUL-1994.
XX
PF   25-DEC-1992;   92JP-00359265.
XX
PR   25-DEC-1992;   92JP-00359265.
XX
PA   (TOFU ) TONEN CORP.
XX
DR   WPI; 1994-259553/32.
XX
PT   New DNA sequence encoding canine zona pellucida CZP2 - useful for the
PT   prodn. of a canine contraceptive vaccine antigen.
XX
PS   Disclosure; Page 5; 10pp; Japanese.
XX
CC   The CZP2 DNA (AAQ70072) was prepd. by the cloning of CZP2(75-520) -
CC   AAQ81700 using the primers given in AAQ70073-74, CZP2(1-65) - AAQ81804
CC   using the primers given in AAQ70082-83, CZP2(42-103) - AAQ81803 using the
CC   primers given in AAQ70079-81 and CZP2(487-713) - AAQ81957 using the
CC   primers given in AAQ70075-78
XX
SQ   Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2161 TCTCCTTTTTTTTTTT 2177
              ||  |||||||||||||
Db          5 TCGACTTTTTTTTTTT 21


RESULT 4787
```

```
AAT01778
ID   AAT01778 standard; DNA; 21 BP.
XX
AC   AAT01778;
XX
DT   22-DEC-1995  (first entry)
XX
DE   Peptide nucleic acid oligomer targetting ELAM-1 3'-UTR.
XX
KW   peptide nucleic acid; PNA; intercellular adhesion molecule; ICAM-1;
KW   endothelial leukocyte; ELAM-1; vascular; VCAM-1; antiinflammatory;
KW   anticancer; antimetastatic; anti-AIDS; anti-rhinoviral; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .21
FT                   /*tag=  a
FT                   /note= "at least one (and preferably all) of the backbone
FT                   subunits are composed of amide units, so that the
FT                   oligomer consists of the nucleobases attached covalently
FT                   to a polyamide backbone"
XX
PN   WO9504749-A1.
XX
PD   16-FEB-1995.
XX
PF   05-AUG-1994;   94WO-US009026.
XX
PR   05-AUG-1993;   93US-00102650.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Mirabelli CK;
XX
DR   WPI; 1995-090842/12.
XX
PT   New peptide nucleic acid oligomers hybridising to adhesion molecule genes
PT   - are stable anti:sense cpds. of high affinity, partic. for treating
PT   inflammation, viral infection, cancer etc.
XX
PS   Claim 10; Page 40; 57pp; English.
XX
CC   New oligomers are claimed which (A) have at least one peptide nucleic
CC   acid (PNA) subunit and (B) have a sequence hybridisable to AUG region,
CC   coding region, 5'-untranslated region or 3'-untranslated region of ICAM-1
CC   or ELAM-1, or hybridisable to AUG region, coding region, 5'- untranslated
CC   region, exon/intron junction region or 3'-untranslated region of VCAM-1.
CC   The PNAs can be used to target RNA and single stranded DNA (ssDNA) to
CC   produce antisense-type gene regulation moieties. Hence they may be used
CC   therapeutically for modulating cellular adhesion and thus as
CC   antimetastatic agents, anticancer agents, antirhinoviral agents, anti-
CC   AIDS agents and antiinflammatory agents. They may also be useful as
CC   diagnostics, e.g. as probes for specific mRNAs. PNA oligomers have high
CC   affinity for complementary single stranded DNA. They are also able to
CC   form triple helices in which a first PNA strand binds with RNA or ssDNA
CC   and a second PNA strand binds with the resulting double helix or with the
CC   first PNA strand. The PNAs possess no significant charge and are water
CC   soluble, which facilitates cellular uptake. Further, since they contain
CC   amides of non-biological amino acids, they are biostable and resistant to
CC   enzymatic degradation by proteases. The present sequence targets
CC   endothelial leukocyte adhesion molecule-1 (ELAM-1) 3'-untranslated region
XX
SQ   Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||  |
Db          5 TGAGGGGGTAATCTACA 21
```

```
RESULT 4788
AAT36683
ID   AAT36683 standard; DNA; 21 BP.
XX
AC   AAT36683;
XX
DT   21-JAN-1997  (first entry)
XX
DE   Antisense oligonucleotide ISIS 2693.
XX
KW   Antisense oligonucleotide; human; intracellular adhesion molecule-1;
KW   ICAM-1; endothelial leukocyte adhesion molecule-1; ELAM-1; E-selectin;
KW   vascular cell adhesion molecule-1; VCAM-1; white blood cell; brequinar;
KW   vascular endothelium; allograft rejection; immunosuppression; rapamycin;
KW   anti-lymphocyte serum; monoclonal antibody; cardiac allograft; therapy;
KW   renal allograft rejection; donor-specific transplant tolerance; LFA-1;
KW   ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .21
FT                   /*tag=  a
FT                   /note= "phosphorothioate backbone"
XX
PN   WO9615780-A1.
XX
PD   30-MAY-1996.
XX
PF   22-NOV-1995;   95WO-US015536.
XX
PR   23-NOV-1994;   94US-00344155.
XX
PA   (ISIS-) ISIS PHARM INC.
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Bennett CF,  Stepkowski SM;
XX
DR   WPI; 1996-268321/27.
XX
PT   Oligo:nucleotide targetted to a nucleic acid sequence encoding ICAM-1,
PT   ELAM-1 or VCAM-1 - useful for treating or preventing allo:graft
PT   rejection.
XX
PS   Example 8; Page 56; 92pp; English.
XX
CC   AAT30211-T30233, AAT33058-T33112 and AAT36667-T36684 represent antisense
CC   oligonucleotides of the invention. These sequences target regions of the
CC   coding sequences for human intercellular adhesion molecule-1 (ICAM-1),
CC   endothelial leukocyte adhesion molecule-1 (ELAM-1, also known as E-
CC   selectin), or vascular cell adhesion molecule-1 (VCAM-1). This sequence
CC   targets the 3' untranslated region (nucleotides 2760-2788) of ELAM-1.
CC   ICAM-1, ELAM-1, and VCAM-1 represent three of the five cell adhesion
CC   molecules involved in the adherence of white blood cells to vascular
CC   endothelium. These sequences can be used in a composition for treating
CC   allograft rejection. The composition contains one of these sequences in
CC   combination with an immunosuppressive agent. The immunosuppressive agent
CC   used in the compositions is brequinar, rapamycin, anti-lymphocyte serum,
CC   a monoclonal antibody against LFA-1 or an antisense oligonucleotide. The
CC   compositions can be used for treating or preventing allograft rejection,
CC   such as cardiac or renal allograft rejection. By using these
CC   compositions, allograft survival times are extended, and donor-specific
CC   transplant tolerance is induced
XX
SQ   Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||  |
```

```
Db          5 TGAGGGGGTAATCTACA 21


RESULT 4789
AAT51628
ID   AAT51628 standard; DNA; 21 BP.
XX
AC   AAT51628;
XX
DT   12-NOV-1997  (first entry)
XX
DE   Viral integrase inhibiting oligonucleotide.
XX
KW   Human immunodeficiency virus; HIV; Epstein Barr virus; EBV;
KW   herpes simplex virus; HSV; human papilloma virus; HPV; adenovirus;
KW   respiratory syncytial virus; RSV; cytomegalovirus; CMV; hepatitis B;
KW   integrase inhibition; guanosine tetrad; ss.
XX
OS   Synthetic.
XX
PN   WO9703997-A1.
XX
PD   06-FEB-1997.
XX
PF   17-JUL-1996;   96WO-US011786.
XX
PR   19-JUL-1995;   95US-0001505P.
PR   23-OCT-1995;   95US-00535168.
PR   19-MAR-1996;   96US-0013688P.
PR   25-MAR-1996;   96US-0014007P.
PR   17-APR-1996;   96US-0015714P.
PR   23-APR-1996;   96US-0016271P.
XX
PA   (ARON-) ARONEX PHARM INC.
XX
PI   Rando RF,  Fennewald S,  Zendegui JG,  Ojwang JO,  Hogan ME;
PI   Pommier Y,  Mazumder A;
XX
DR   WPI; 1997-132569/12.
XX
PT   Oligo:nucleotide(s) capable of forming guanosine tetrads - inhibit viral
PT   enzyme responsible for integrating viral nucleic acid into the host
PT   genome.
XX
PS   Claim 3; Page 145; 245pp; English.
XX
CC   AAT51619-T51698 are oligonucleotides used to inhibit the production of
CC   viruses within a host cell. The oligonucleotides may form guanosine
CC   tetrads (structures formed of eight hydrogen bonds by coordination of the
CC   four oxygen atoms of guanine with alkali cations believed to bind to the
CC   centre of a quadruplex, and by strong stacking interactions) and are used
CC   to prevent the integration of viral nucleic acid into a host genome. The
CC   oligonucleotides inhibit functioning of the integrase enzyme and hence
CC   prevent viral infection. Viral infections that may be treated include
CC   human immunodeficiency virus (HIV), Epstein Barr virus (EBV), herpes
CC   simplex virus (HSV), human papilloma virus (HPV), adenovirus, respiratory
CC   syncytial virus (RSV), cytomegalovirus (CMV) and hepatitis B virus (HBV),
CC   especially HIV-1 infection
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        106 GCTTGGGGGCTGGGGGG 122
              | ||||||| |||||||
Db          4 GGTTGGGGGGTGGGGGG 20


RESULT 4790
AAT59010
ID   AAT59010 standard; DNA; 21 BP.
XX
AC   AAT59010;
XX
DT   04-AUG-1997  (first entry)
XX
DE   beta3-adrenergic receptor gene PCR 10 DOWN primer.
XX
KW   Hybridisation; polymerase chain reaction; beta3-adrenergic receptor;
KW   beta3AR; ss.
XX
OS   Synthetic.
XX
PN   WO9636641-A1.
XX
PD   21-NOV-1996.
XX
PF   17-MAY-1996;   96WO-US007218.
XX
PR   19-MAY-1995;   95US-00446530.
XX
PA   (UYJO ) UNIV JOHNS HOPKINS SCHOOL MED.
XX
PI   Shuldiner AR,  Walston J,  Silver K,  Roth J;
XX
DR   WPI; 1997-012034/01.
XX
PT   New isolated beta3-adrenergic receptor mutation - used to develop prods.
PT   for the diagnosis and treatment of type II diabetes and/or obesity.
XX
PS   Example 1; Page 31; 51pp; English.
XX
CC   The present sequence is a PCR antisense primer for the amplification of
CC   the beta3-adrenergic receptor (beta3AR) gene from nucleotide position
CC   2895 to 2916. This can be used for rapid detection of the Trp64Arg
CC   beta3AR missense mutation as part of the diagnosis and treatment of
CC   subjects having or at risk of having type II diabetes mellitus and/or
CC   obesity
XX
SQ   Sequence 21 BP; 2 A; 4 C; 5 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2315 ATTTGTTGCTGCTTGTC 2331
              | ||||||| ||||||
Db          3 AGTTGTTGCTTCTTGTC 19


RESULT 4791
AAT84680
ID   AAT84680 standard; DNA; 21 BP.
XX
AC   AAT84680;
XX
DT   02-JAN-1998  (first entry)
XX
DE   KSHV glycoprotein B antisense oligonucleotide TFTDV.
XX
KW   KSHV; gamma herpes virus; glycoprotein B; vaccine; infection;
KW   human Kaposi's sarcoma-associated herpes virus; probe; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9712042-A2.
XX
PD   03-APR-1997.
XX
PF   26-SEP-1996;   96WO-US015702.
XX
PR   26-SEP-1995;   95US-0004297P.
XX
PA   (UNIW ) UNIV WASHINGTON.
```

```
XX
PI   Rose TM,  Bosch ML,  Strand K;
XX
DR   WPI; 1997-212901/19.
XX
PT   DNA encoding glyco:protein B of Retro:peritoneal fibromatosis and
PT   Kaposi's sarcoma associated Herpes viruses - useful in vaccines for
PT   treatment of herpes infection or for detection of viral DNA.
XX
PS   Claim 37; Page 36; 138pp; English.
XX
CC   Claimed type 3 oligonucleotides (AAT84675-82) are specific non-degenerate
CC   oligonucleotides for the human Kaposi's sarcoma- associated herpes virus
CC   (KSHV) glycoprotein B (gB), and can be used for the amplification or
CC   detection of gB-encoding polynucleotides of KSHV origin. GLTEA can be
CC   used with TFTDV as primers in a first amplification of a nested
CC   amplification reaction
XX
SQ   Sequence 21 BP; 4 A; 4 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2709 TCTCTGCCTGTAAATGT 2725
              ||||||  | ||||||||
Db          4 TCTCTGTCAGTAAATGT 20


RESULT 4792
AAT84689
ID   AAT84689 standard; DNA; 21 BP.
XX
AC   AAT84689;
XX
DT   02-JAN-1998  (first entry)
XX
DE   KSHV glycoprotein B sense oligonucleotide VTECA.
XX
KW   KSHV; gamma herpes virus; glycoprotein B; vaccine; infection;
KW   human Kaposi's sarcoma-associated herpes virus; probe; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9712042-A2.
XX
PD   03-APR-1997.
XX
PF   26-SEP-1996;   96WO-US015702.
XX
PR   26-SEP-1995;   95US-0004297P.
XX
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Rose TM,  Bosch ML,  Strand K;
XX
DR   WPI; 1997-212901/19.
XX
PT   DNA encoding glyco:protein B of Retro:peritoneal fibromatosis and
PT   Kaposi's sarcoma associated Herpes viruses - useful in vaccines for
PT   treatment of herpes infection or for detection of viral DNA.
XX
PS   Claim 37; Page 76; 138pp; English.
XX
CC   Claimed type 3 oligonucleotides (AAT84686-93) are specific non-degenerate
CC   oligonucleotides for the human Kaposi's sarcoma- associated herpes virus
CC   (KSHV) glycoprotein B (gB). The type 3 oligonucleotides (see also
CC   AAT84675-82) can be used in various pair combinations or with type 1
CC   oligonucleotides (see AAT84650-66) in the PCR amplification, cloning and
CC   sequencing of KSHV polynucleotides encoding gB (see AAT84642 and
CC   AAT84648)
XX
SQ   Sequence 21 BP; 3 A; 7 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        756 CCATTTCCATGACCAAG 772
              ||||||| ||||| ||
Db          3 CCATTTCCGTGACCGAG 19


RESULT 4793
AAT76136
ID   AAT76136 standard; DNA; 21 BP.
XX
AC   AAT76136;
XX
DT   12-SEP-1997  (first entry)
XX
DE   Human eosinophil peroxidase antisense oligonucleotide HSEPAS4.
XX
KW   Asthma; airway epithelium; adenosine free; cystic fibrosis;
KW   chronic obstructive pulmonary disease; bronchitis; ss.
XX
OS   Synthetic.
XX
PN   WO9640162-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US009306.
XX
PR   07-JUN-1995;   95US-00474497.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW,  Metzger WJ;
XX
DR   WPI; 1997-051871/05.
XX
PT   Treatment of airway diseases such as asthma - by topically applying
PT   adenosine-free antisense oligo:nucleotide to airway epithelium of
PT   subject.
XX
PS   Claim 5; Page 27; 71pp; English.
XX
CC   A method for treating airway disease in a subject has been produced,
CC   which involves the topical administration of an essentially adenosine
CC   free antisense oligonucleotide (ON) to the airway epithelium of the
CC   subject. The present sequence is an antisense oligonucleotide HSEPAS4
CC   specific for the human eosinophil peroxidase. The method can be used to
CC   treat airway diseases such as cystic fibrosis, asthma, chronic
CC   obstructive pulmonary disease, bronchitis and other airway diseases
CC   characterised by an inflammatory response. By eliminating adenosine from
CC   the antisense ON, its liberation upon antisense degradation is prevented,
CC   thereby preventing adenosine- induced bronchoconstriction in patients
CC   with hyper-reactive airways
XX
SQ   Sequence 21 BP; 0 A; 4 C; 7 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2566 CTCTGTTCTTGGCTTGG 2582
              ||||||||||  ||||
Db          1 CTCTGTTCTTGTTTTGG 17


RESULT 4794
AAV05263
ID   AAV05263 standard; DNA; 21 BP.
XX
AC   AAV05263;
```

```
XX
DT   18-MAY-1998  (first entry)
XX
DE   Antisense primer used to amplify part of exon 2 of the BRCA1 gene.
XX
KW   BRCA1 gene; identification; mutation; multiplex amplification process;
KW   ovarian cancer; breast cancer; large scale diagnostic screening;
KW   PCR primer; amplify; ds.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9743441-A1.
XX
PD   20-NOV-1997.
XX
PF   13-MAY-1997;   97WO-CA000321.
XX
PR   14-MAY-1996;   96US-00649950.
XX
PA   (VISI-) VISIBLE GENETICS INC.
XX
PI   Shipman R,  Leushner J,  Dunn JM;
XX
DR   WPI; 1998-008902/01.
XX
PT   Detecting mutation(s) in the BRCA1 gene by exon amplification - then
PT   comparing amplification products with those from wild type gene,
PT   optionally followed by sequencing.
XX
PS   Claim 15; Page 10; 65pp; English.
XX
CC   PCR primers AAV05262-64 are used to amplify a region of exon 2 of the
CC   BRCA1 gene. The primers are used in a method for identifying mutations in
CC   the BRCA1 gene using a multiplex amplification process. Mutations in
CC   BRCA1 are associated with ovarian and breast cancer. A sample is tested
CC   for mutations in the BRCA1 gene by amplifying at least one (partial) exon
CC   of the gene, and comparing the sizes and amounts of amplification
CC   products with corresponding products of the wild-type gene. Any
CC   differences indicate a mutation. If no mutations are detected, the
CC   sequence of at least one exon may be determined. This method is
CC   inexpensive enough to be used for large scale diagnostic screening
XX
SQ   Sequence 21 BP; 4 A; 3 C; 5 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1095 CTGTTCATTTGGCTAGG 1111
              ||||||||||| ||||
Db          3 CTGTTCATTTGCATAGG 19


RESULT 4795
AAX79217
ID   AAX79217 standard; DNA; 21 BP.
XX
AC   AAX79217;
XX
DT   31-AUG-1999  (first entry)
XX
DE   Oligonucleotide #10 forms an intramolecular stacked tetrad structure.
XX
KW   Column; box; stacked tetrad; inhibition; replication; pathophysiological;
KW   herpes simplex virus; HSV; human papilloma virus; Epstein Barr Virus;
KW   HPV; EBV; HIV; human immunodeficiency virus; adenovirus; RSV; HBV; HCMV;
KW   respiratory syncytial virus; hepatitis B virus; human cytomegalovirus;
KW   human T-cell leukaemia virus; HTLV; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .21
FT                    /*tag=  a
FT                    /note= "optionally contains phosphodiester
FT                    internucleotide linkages"
FT   misc_structure   1. .21
FT                    /*tag=  b
FT                    /note= "forms intramolecular stacked tetrad or 3D
FT                    columnar box structure"
XX
PN   WO9833807-A1.
XX
PD   06-AUG-1998.
XX
PF   03-FEB-1998;   98WO-US001974.
XX
PR   04-FEB-1997;   97US-0037374P.
PR   09-DEC-1997;   97US-00987574.
XX
PA   (ARON-) ARONEX PHARM INC.
XX
PI   Rando RF,  Ojwang JO,  Hogan ME,  Wallace TL,  Cossum PA;
XX
DR   WPI; 1998-446809/38.
XX
PT   New guanosine-rich tetrad forming oligonucleotide(s) - used for
PT   inhibiting virus replication for treating e.g. herpes simplex, papilloma,
PT   HIV, adenovirus or hepatitis B virus infection.
XX
PS   Disclosure; Page 137; 140pp; English.
XX
CC   Sequences AAX79210-X79275 represent oligonucleotides (ON) which are able
CC   to form a columnar box or "stacked tetrad" structure by intramolecular
CC   internucleotide binding. The ONs are used to inhibit the replication of
CC   viruses. They are able to suppress virus production for prolonged periods
CC   after an initial short treatment regimen. They can be used for treating
CC   pathophysiological states caused by viruses such as herpes simplex virus,
CC   human papilloma virus, Epstein Barr Virus, HIV, adenovirus, respiratory
CC   syncytial virus, hepatitis B virus, human cytomegalovirus and HTLV I and
CC   II
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       106 GCTTGGGGGCTGGGGGG 122
             | ||||||| |||||||
Db         4 GGTTGGGGGGTGGGGGG 20


RESULT 4796
AAV40572/c
ID   AAV40572 standard; DNA; 21 BP.
XX
AC   AAV40572;
XX
DT   21-DEC-1998  (first entry)
XX
DE   Human TSC gene exon 3 reverse primer hTSCex3.
XX
KW   Thiazide-sensitive Na-Cl cotransporter; TSC; hTSC gene; human;
KW   ion transport; Gitelman's syndrome; Bartter's syndrome;
KW   hypokalaemic alkalosis; hypocalciuria; hypomagnesemia; diagnosis;
KW   therapy; SSCP; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9829431-A1.
XX
PD   09-JUL-1998.
XX
```

PF 19-DEC-1997; 97WO-US023553.
XX
PR 31-DEC-1996; 96US-00778052.
XX
PA (UYYA) UNIV YALE.
XX
PI Lifton RP, Simon DB;
XX
DR WPI; 1998-388029/33.
XX
PT Thiazide sensitive cotransporter and ATP sensitive potassium channel
PT genes - useful for developing products for the diagnosis and treatment of
PT ion transport disorders, e.g. Gitelman's Syndrome or Bartter's Syndrome.
XX
PS Example 1; Page 51; 105pp; English.
XX
CC Primers hTSCex3 forward and reverse (see AAV40571 and AAV40572,
CC respectively) are designed to amplify exon 3 of the human hTSC gene (see
CC AAV40561) that codes for thiazide-sensitive Na-Cl cotransporter TSC (see
CC AAW29682). Both primers are located within introns of hTSC. 27 Sets of
CC specific primers (see AAV40565-V40618) were used for SSCP analysis of
CC hTSC. Amplified products were analysed for molecular variants by
CC electrophoresis, and identified variants were sequenced. Complete linkage
CC of Gitelman's syndrome with TSC was demonstrated. Identification of the
CC molecular basis of Gitelman's syndrome allows for the genetic diagnosis
CC of this disorder. The invention provides products and methods useful for
CC diagnosis and treatment of Gitelman's syndrome and other ion transport
CC disorders
XX
SQ Sequence 21 BP; 6 A; 2 C; 9 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1781 TGAACCCCATTCTTTCC 1797
||||.|||||||||.||
Db 20 TGAATCCCATTCTTCCC 4

RESULT 4797
AAZ26192
ID AAZ26192 standard; DNA; 21 BP.
XX
AC AAZ26192;
XX
DT 30-NOV-1999 (first entry)
XX
DE Human polymorphic region 381.
XX
KW Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW cell viability; loss of heterozygosity; precancerous condition; ASI;
KW allele specific inhibitor; somatic cell; diagnosis; prevention;
KW atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS Homo sapiens.
XX
PN WO9841648-A2.
XX
PD 24-SEP-1998.
XX
PF 19-MAR-1998; 98WO-US005419.
XX
PR 20-MAR-1997; 97US-0041057P.
XX
PA (VARI-) VARIAGENICS INC.
XX
PI Housman D, Ledley FD, Stanton VP;
XX
DR WPI; 1998-521232/44.
XX
PT Identifying target genes for allele-specific drugs - used for diagnosis,
PT prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT dysplastic lesions, endometriosis or graft versus host disease.
XX
PS Disclosure; Fig 7; 605pp; English.
XX
CC This invention describes a novel method for identifying an inhibitor
CC potentially useful for treatment of cancer, where the inhibitor is active
CC on a gene vital for cell growth or viability, and where the gene is
CC subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC used for preventing the development of cancer in a patient having a
CC precancerous condition, by administering to the patient a first allele
CC specific inhibitor (ASI) targeted to an allele of a first essential gene
CC present in cells of the precancerous condition, where the normal somatic
CC cells of the patient are heterozygous for the first gene, the inhibitor
CC is active on at least one but less than all allelic forms of the gene
CC present in a population and targets only one allelic form present in the
CC normal somatic cells, and the first gene. The products and methods can be
CC used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC graft versus host disease. The method can also be used to remove
CC malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC human polymorphic sites described in the method of the invention
XX
SQ Sequence 21 BP; 2 A; 7 C; 7 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 712 CCAGCACCTGTTGCTGC 728
||||||.|||.||||||
Db 5 CCAGCAGCTGGTGCTGC 21

RESULT 4798
AAX99727
ID AAX99727 standard; DNA; 21 BP.
XX
AC AAX99727;
XX
DT 29-SEP-1999 (first entry)
XX
DE Human AUR2 inhibitor.
XX
KW AUR1; AUR2; human; AUR modulator; cancer; glioma; medullablastoma;
KW chondrosarcoma; pancreatic tumour; proliferative disease; diagnosis;
KW therapy; inhibitor; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9937788-A2.
XX
PD 29-JUL-1999.
XX
PF 21-JAN-1999; 99WO-US001283.
XX
PR 22-JAN-1998; 98US-00012135.
XX
PA (SUGE-) SUGEN INC.
XX
PI Plowman GD, Mossie K;
XX
DR WPI; 1999-458699/38.
XX
PT New nucleic acid encoding human AUR1 and 2 polypeptides, used to identify
PT specific modulators for treating cancer or for diagnosis.
XX
PS Claim 24; Page 120; 153pp; English.
XX
CC This sequence is an inhibitor of the human AUR2 protein of the invention.

```
CC   The AUR1 and AUR2 proteins can be used to identify specific modulators
CC   of, and to generate specific antibodies recognising AUR1 and AUR2. The
CC   modulators can be used for treating conditions involving abnormal AUR
CC   signal transduction, specifically cancer (of colon, breast, kidney,
CC   ovary, bladder, head or neck, also glioma, medullablastoma,
CC   chondrosarcoma and pancreatic tumours, particularly of colon
CC   (specifically), breast or kidney). The modulators can also be used for
CC   studying their effects in animal models of proliferative disease. Probes,
CC   based on the coding sequences are used, diagnostically, to detect or
CC   quantify AUR mRNA, by hybridisation or polymerase chain reaction (PCR).
CC   The DNA, optionally mutated, are useful in gene therapy. Ab are used as
CC   diagnostic immunoassay reagents for detecting the proteins
XX
SQ   Sequence 21 BP; 3 A; 12 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        595 CCGCCGCTCCGACCTGC 611
              ||||| |||||||| ||
Db          4 CCGCCACTCCGACCAGC 20


RESULT 4799
AAV63682
ID   AAV63682 standard; DNA; 21 BP.
XX
AC   AAV63682;
XX
DT   11-MAR-1999  (first entry)
XX
DE   HIV-2 ENV region PCR primer.
XX
KW   HIV-1; HIV-2; detection; Acquired Immunodeficiency Syndrome; AIDS;
KW   co-amplification assay; PCR primer; ss.
XX
OS   Synthetic.
OS   Human immunodeficiency virus 2.
XX
PN   EP887427-A2.
XX
PD   30-DEC-1998.
XX
PF   24-JUN-1998;   98EP-00304959.
XX
PR   25-JUN-1997;   97US-0050759P.
XX
PA   (ORTH-) ORTHO-CLINICAL DIAGNOSTICS INC.
XX
PI   Backus JW,  Atwood SM,  Casey AE,  Rasmussen EB,  Cummins TJ;
XX
DR   WPI; 1999-047891/05.
XX
PT   Detecting Human Immunodeficiency Virus 1 and 2 - using at least four new
PT   oligonucleotide primers and multiple detection probes.
XX
PS   Claim 12; Page 4; 25pp; English.
XX
CC   PCR primers AAV63681-88 are used to amplify human deficiency type 2 (HIV-
CC   2) nucleic acids. The specification also describes primers and probes for
CC   HIV-1 and HIV-2. The primers and probes are useful for amplifying and
CC   detecting HIV-1 and HIV-2 and all their subtype nucleic acids in
CC   biological samples, and for giving progress in our understanding of
CC   Acquired Immunodeficiency Syndrome (AIDS). The primers are able to detect
CC   all HIV-1 and HIV-2 subtypes without detecting non-related viruses. The
CC   primer sets for HIV-1 and HIV-2 are compatible with each other, and can
CC   be combined to form a co-amplification assay for HIV-1 and HIV-2. Using
CC   more than one primer set to amplify target nucleic acid sequences which
CC   overlap a common probe region maximises strain sensitivity and robustness
XX
SQ   Sequence 21 BP; 6 A; 8 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        734 CAGACAGTCATTCGCAA 750
              ||||| |||| ||||||
Db          3 CAGACGGTCAGTCGCAA 19


RESULT 4800
AAX53935
ID   AAX53935 standard; DNA; 21 BP.
XX
AC   AAX53935;
XX
DT   05-JUL-1999  (first entry)
XX
DE   Eosinophil peroxidase antisense oligonucleotide fragment.
XX
KW   Antisense oligonucleotide; multiple target; antisense treatment;
KW   impaired respiration; inflammation; lung disease;
KW   pulmonary vasoconstriction; inflammation; allergic rhinitis;
KW   acute asthma; allergy; asthma; impeded respiration;
KW   respiratory distress syndrome; pain; cystic fibrosis;
KW   pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW   chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW   colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW   hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW   prostate cancer; ss.
XX
OS   Synthetic.
XX
PN   WO9913886-A1.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US019419.
XX
PR   17-SEP-1997;   97US-0059160P.
PR   09-JUN-1998;   98US-00093972.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
DR   WPI; 1999-229400/19.
XX
PT   New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT   vasoconstriction.
XX
PS   Disclosure; Page 46; 120pp; English.
XX
CC   The specification describes antisense oligonucleotides (AAX52869-X55271)
CC   directed against at least 2 mRNAs selected from target genes, coding and
CC   non-coding regions of RNAs corresponding to target genes, gene initiation
CC   codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
CC   -end and the juxta-section between coding and non-coding regions and all
CC   segments of RNAs encoding proteins associated with one or more diseases,
CC   conditions or mixtures. The antisense oligonucleotides may be derived
CC   from sequences AAX55272-74. These multiple target oligonucleotides
CC   (specifically AAX55180-271) can be used for the antisense treatment of
CC   diseases and conditions. Typical diseases and conditions are those
CC   associated with impaired respiration and inflammation, including lung
CC   diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC   acute asthma, allergies, asthma, impeded respiration, respiratory
CC   distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC   pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC   disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC   colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC   hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC   well as all types of cancers which may metastasize or have metastasized
CC   to the lungs, including breast and prostate cancer
XX
```

```
SQ   Sequence 21 BP; 0 A; 4 C; 7 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2566 CTCTGTTCTTGGCTTGG 2582
              ||||||||||| ||||
Db          1 CTCTGTTCTTGTTTTGG 17


RESULT 4801
AAZ21762
ID   AAZ21762 standard; DNA; 21 BP.
XX
AC   AAZ21762;
XX
DT   01-DEC-1999  (first entry)
XX
DE   Exemplary oligonucleotide primer D14S140 (Rev).
XX
KW   neoplasia; mutant; target nucleotide; hybridization; lung cancer; ss;
KW   neck cancer; head cancer; saliva test; chemotherapy; early detection;
KW   primer; PCR; amplification.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9946408-A1.
XX
PD   16-SEP-1999.
XX
PF   10-MAR-1999;   99WO-US005220.
XX
PR   10-MAR-1998;   98US-00038637.
XX
PA   (UYJO ) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
XX
PI   Sidransky D;
XX
DR   WPI; 1999-551428/46.
XX
PT   Detection of cancers comprises assaying for a genetic mutation associated
PT   with cancer.
XX
PS   Disclosure; Page 26; 99pp; English.
XX
CC   This is an exemplary oligonucleotide primer, for use in the detection of
CC   neoplasmic related gene mutations. There are over 40 known proto-
CC   oncogenes and suppressor genes to date, which control growth,
CC   development, and cell differentiation. Regulation of these genes can,
CC   under certain circumstances, be altered and normal cells can assume
CC   neoplastic growth characteristics. The invention provides a method for
CC   detecting a neoplastic disorder of the head and neck or lung in a
CC   subject. The detection of a target mutant nucleotide sequence in the
CC   saliva is indicative of a neoplastic disorder of the head, neck or lung.
CC   This allows early detection and therefore treatment of the preneoplasia
CC   or cancer, and can also be used to monitor high risk patients undergoing
CC   chemoprevention or chemotherapy
XX
SQ   Sequence 21 BP; 4 A; 5 C; 3 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         89 CCGATTTTGGATTTACC 105
              | |||||| ||||||||
Db          5 CAGATTTTTGATTTACC 21


RESULT 4802
AAA33375
ID   AAA33375 standard; DNA; 21 BP.
XX
AC   AAA33375;
XX
DT   28-JUL-2000  (first entry)
XX
DE   Low adenosine antisense oligonucleotide SEQ ID NO:1064.
XX
KW   Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW   phosphorothioate; impaired respiration; inflammation; allergy;
KW   allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW   antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
KW   lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW   respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW   pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW   cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS   Homo sapiens.
XX
PN   WO200009525-A2.
XX
PD   24-FEB-2000.
XX
PF   03-AUG-1999;   99WO-US017712.
XX
PR   03-AUG-1998;   98US-0095212P.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
DR   WPI; 2000-205971/18.
XX
PT   New antisense oligonucleotides useful for treating e.g. pulmonary
PT   vasoconstruction, inflammation, allergies, asthma, hypertension,
PT   bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT   cancers.
XX
PS   Claim 18; Page 398; 1343pp; English.
XX
CC   The present invention describes a new composition comprising an antisense
CC   oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC   nucleic acids involved in bronchoconstriction, allergies, and/or
CC   inflammation. The ON can have antiinflammatory, antiallergic,
CC   antiasthmatic, cytostatic and analgesic activities. The compositions are
CC   useful for the treatment of diseases associated with inflammation,
CC   impaired airways, including lung disease and diseases whose secondary
CC   effects afflict the lungs of a subject. They can be used for treating
CC   e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC   impeded respiration, respiratory distress syndrome, pain, cystic
CC   fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC   pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC   carcinomas, and cancers which may metastasise to the lungs, including
CC   breast and prostate cancer. The reduction of the adenosine content of the
CC   ONs reduces side effects. The A-containing ONs break down with the
CC   release of deoxyadenosine which activates adenosine receptors causing
CC   bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC   nucleotide sequences given in the sequence listing from the present
CC   invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC   sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC   from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC   AAA33992) are specifically claimed ONs from the present invention. N.B.
CC   Sequences given in the disclosure of the present invention do not match
CC   up with their corresponding SEQ ID NO: sequences given in the sequence
CC   listing
XX
SQ   Sequence 21 BP; 0 A; 4 C; 7 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2566 CTCTGTTCTTGGCTTGG 2582
```

```
                  ||||||||||| ||||
Db          1 CTCTGTTCTTGTTTTGG 17


RESULT 4803
AAZ55720/c
ID   AAZ55720 standard; DNA; 21 BP.
XX
AC   AAZ55720;
XX
DT   27-MAR-2000  (first entry)
XX
DE   Human caspase-9 PCR primer SEQ ID NO:2.
XX
KW   Caspase-9; human; apoptosis; transgenic animal; caspase-9 knockout; PCR;
KW   primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9963097-A2.
XX
PD   09-DEC-1999.
XX
PF   28-MAY-1999;   99WO-US011861.
XX
PR   02-JUN-1998;   98US-0087711P.
XX
PA   (VERT-) VERTEX PHARM INC.
PA   (UYYA ) UNIV YALE.
XX
PI   Kuida K,  Flavell RA;
XX
DR   WPI; 2000-086981/07.
XX
PT   Transgenic animal used to identify agents which treat or prevent
PT   disorders associated with viral infections.
XX
PS   Example 1; Page 8; 33pp; English.
XX
CC   The invention relates to a genetically altered animal that is defective
CC   for expression of caspase-9. Caspase-9 is a cysteine protease that
CC   activates other members of the caspase cascade, and is therefore involved
CC   in regulating apoptosis, particularly of neurons, smooth or cardiac
CC   muscle cells, or where associated with viral infection. Inhibition of
CC   expression or activity of caspase-9 will thus reduce apoptosis. Agents
CC   that inhibit expression or activity of caspase-9 have anti-apoptotic
CC   activity, and may be used for the treatment or prevention of
CC   developmental abnormalities; nerve cell death; smooth or cardiac muscle
CC   degeneration, or cell death associated with viral infection. Sequences
CC   AAZ55719-Z55720 represent PCR primers used to isolate and amplify human
CC   caspase-9 cDNA from Jurkat cells. The cDNA thus isolated was used to
CC   obtain a mouse caspase-9 genomic clone, which included the sequence
CC   encoding the caspase family active pentapeptide motif (AAY58372). The
CC   murine caspase-9 genomic DNA was subsequently used in the generation of
CC   caspase-9 deficient mice
XX
SQ   Sequence 21 BP; 9 A; 0 C; 4 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2500 TCTATAACACATCATAA 2516
                ||| ||| |||||||||
Db         17 TCTTTAAAACATCATAA 1


RESULT 4804
AAZ73879/c
ID   AAZ73879 standard; DNA; 21 BP.
XX
AC   AAZ73879;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:8235.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplctyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 1986; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 21 BP; 9 A; 4 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2062 TTAATAAGTGGTATCTG 2078
                || |||||| |||||||
Db         19 TTCATAAGTAGTATCTG 3


RESULT 4805
AAZ75815
ID   AAZ75815 standard; DNA; 21 BP.
XX
AC   AAZ75815;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:10171.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
```

```
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 9; Page 2399; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 21 BP; 8 A; 7 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1567 AAAAATCCTTCTCCACC 1583
              ||||| ||| |||||||
Db          1 AAAAAACCTGCTCCACC 17


RESULT 4806
AAF19497
ID   AAF19497 standard; DNA; 21 BP.
XX
AC   AAF19497;
XX
DT   14-MAR-2001  (first entry)
XX
DE   Human eosinophil peroxidase polynucleotide fragment #1064.
XX
KW   Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW   human; airway disorder; bronchoconstriction; lung inflammation;
KW   surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW   immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW   respiratory obstruction; pulmonary obstruction; impeded respiration;
KW   surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW   respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW   pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW   chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW   cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200062736-A2.
XX
PD   26-OCT-2000.
XX
PF   24-MAR-2000; 2000WO-US008020.
XX
PR   06-APR-1999;   99US-0127958P.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
PA   (NYCE/) NYCE J W.
XX
PI   Nyce JW;
XX
DR   WPI; 2000-679539/66.
XX
PT   Low adenosine (A) content antisense oligonucleotides which do not trigger
PT   adenosine receptors during metabolism, useful e.g. for treating cancers
PT   and respiratory obstructions.
XX
PS   Claim 14; Page 145; 1592pp; English.
XX
CC   The present invention describes low adenosine (A) content antisense
CC   oligonucleotides and compositions (I) comprising them. In the antisense
CC   oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC   (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC   immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC   The antisense oligonucleotides and (I) can be used to down-regulate the
CC   expression and or activity of target polypeptides associated with
CC   lung/respiratory disorders and malignancies, such as stimulating and
CC   activating peptide factors and transmitters, transcription factors,
CC   immunoglobulins and antibodies, antibody receptors, cytokines and
CC   chemokines, endogenously produced specific and non-specific enzymes,
CC   binding proteins, adhesion molecules and their receptors, cytokine and
CC   chemokine receptors, adenosine receptors, bradykinin receptors, central
CC   nervous system (CNS) and peripheral nervous and non-nervous system
CC   receptors, CNS and peripheral nervous and non-nervous system peptide
CC   transmitters, defensins, growth factors, vasoactive peptides and
CC   receptors, binding proteins and malignancy associated proteins. The
CC   antisense oligonucleotides may be used in this way to treat disorders
CC   including respiratory obstruction (especially pulmonary obstruction
CC   and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC   surfactant hypoproduction which are associated with a disease or
CC   condition selected from pulmonary vasoconstriction, inflammation,
CC   allergies, asthma, impeded respiration, respiratory distress syndrome
CC   (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC   hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC   pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC   and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC   fragments and antisense oligonucleotides used in the exemplification of
CC   the present invention
XX
SQ   Sequence 21 BP; 0 A; 4 C; 7 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2566 CTCTGTTCTTGGCTTGG 2582
              ||||||||||  ||||
Db          1 CTCTGTTCTTGTTTTGG 17


RESULT 4807
AAA62937/c
ID   AAA62937 standard; DNA; 21 BP.
XX
AC   AAA62937;
XX
DT   13-NOV-2000  (first entry)
XX
DE   Antisense oligonucleotide A0286U for p300 expression inhibition.
XX
```

KW CBP; CREB binding protein; p300; antisense; leukaemia; cytostatic;
KW cAMP response element binding protein; ss.
XX
OS Unidentified.
XX
PN JP2000139464-A.
XX
PD 23-MAY-2000.
XX
PF 13-NOV-1998; 98JP-00341086.
XX
PR 13-NOV-1998; 98JP-00341086.
XX
PA (TOAG) TOA GOSEI CHEM IND LTD.
XX
DR WPI; 2000-433937/38.
XX
PT An antisense nucleic acid compound for inhibition of expression of p300
PT or CBP.
XX
PS Claim 1; Page 4; 10pp; Japanese.
XX
CC This invention relates to antisense oligonucleotides used for the
CC inhibition of the expression of p300 or CBP (CREB binding protein). The
CC antisense oligonucleotides exhibit cytostatic activity, and specifically
CC inhibit the expression of the cAMP response element binding protein
CC (CREB). The oligonucleotides are used in the therapy, diagnosis and
CC investigation of blood related malignant tumours (e.g. leukaemia). The
CC present sequence represents an antisense oligonucleotide that inhibits
CC p300 expression
XX
SQ Sequence 21 BP; 5 A; 5 C; 4 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy        672 ACATGCCTCACCAGATG 688
              ||||| || ||||||||
Db         17 ACATGACTTACCAGATG 1
```

RESULT 4808
AAZ48932
ID AAZ48932 standard; DNA; 21 BP.
XX
AC AAZ48932;
XX
DT 29-MAR-2000 (first entry)
XX
DE Human ELAM-1 antisense inhibitor, ISIS #2693.
XX
KW Antisense inhibitor; human; ICAM-1; intercellular adhesion molecule-1;
KW vascular cell adhesion molecule-1; hyperproliferative disorder; VCAM-1;
KW endothelial leukocyte adhesion molecule-1; ELAM-1; skin condition;
KW cancer; viral infection; tumour; diapedesis; graft versus host disease;
KW arthritis; infection; autoimmune disorder; multiple sclerosis; stroke;
KW juvenile diabetes mellitus; arthritis; myasthenia gravis; therapy;
KW pemphigus vulgaris; systemic lupus erythematosus; acute myocarditis;
KW cardiovascular disorder; dilated cardiomyopathy; ischaemic heart disease;
KW ss.
XX
OS Homo sapiens.
XX
PN WO9961462-A1.
XX
PD 02-DEC-1999.
XX
PF 26-MAY-1999; 99WO-US011548.
XX
PR 27-MAY-1998; 98US-00085759.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Mirabelli CK, Baker BF;
XX
DR WPI; 2000-072600/06.
XX
PT New antisense oligonucleotides, used for treating e.g. inflammatory
PT conditions, psoriasis, graft rejection, cancers, infections,
PT cardiovascular disorders or autoimmune disorders.
XX
PS Example 15; Page 181; 199pp; English.
XX
CC This sequence is an antisense oligonucleotide of the invention. The
CC antisense oligonucleotides are targeted to a nucleic acid encoding a
CC cellular adhesion molecule (CAM) and is capable of modulating the
CC expression of the CAM. They particularly inhibit intercellular adhesion
CC molecule-1 (ICAM-1), vascular cell adhesion molecule-1 (VCAM-1), or
CC endothelial leukocyte adhesion molecule-1 (ELAM-1). The antisense
CC oligonucleotides can be used to modulate CAM activity in mediating
CC cell:cell interactions and subsequent cellular and biological responses,
CC e.g. T cell activation, leukocyte transmigration and inflammation. The
CC antisense sequences can be used for modulating the synthesis of a CAM.
CC They can be used for treating an animal suspected of having or being
CC prone to a disease or condition associated with a CAM. Oligonucleotides
CC targeted to ICAM-1 can be used for treating an inflammatory disease or
CC condition e.g. inflammatory bowel disease such as Crohn's disease,
CC colitis or ulcerative colitis, a condition of the skin, e.g. psoriasis or
CC cytotoxic dermatitis, rheumatoid arthritis, allograft rejection, cancer,
CC pneumonia, multiple sclerosis or a viral infection. The ICAM-1 sequences
CC can also be used for reducing corticosteroid use in a patient or for
CC reducing cyclosporine use in a patient. The oligonucleotides can also be
CC used for detection and diagnosis. They can also be used for treating e.g.
CC hyperproliferative disorders, tumours, diapedesis, graft versus host
CC disease, arthritis, infections, autoimmune disorders, e.g. autoimmune
CC thyroid disorders, autoimmune forms of arthritis, multiple sclerosis,
CC some forms of juvenile diabetes mellitus, myasthenia gravis, pemphigus
CC vulgaris, systemic lupus erythematosus, cardiovascular disorders,
CC myocardial ischaemia/reperfusion injury, dilated cardiomyopathy, acute
CC myocarditis, ischaemic heart disease or stroke
XX
SQ Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||| |
Db          5 TGAGGGGGTAATCTACA 21
```

RESULT 4809
AAA57738
ID AAA57738 standard; DNA; 21 BP.
XX
AC AAA57738;
XX
DT 20-OCT-2000 (first entry)
XX
DE Oligonuleotide probe OCH37 for human RIP60 polynucleotides.
XX
KW Human; RIP60; zinc finger protein; nucleic acid delivery complex;
KW nucleic acid binding domain; nucleic acid condensation domain; probe; ss.
XX
OS Homo sapiens.
XX
PN WO200040723-A2.
XX
PD 13-JUL-2000.
XX
PF 04-JAN-2000; 2000WO-US000212.
XX
PR 04-JAN-1999; 99US-0114743P.
PR 04-JAN-1999; 99US-0114745P.

```
XX
PA   (UYVE-) UNIV VERMONT & STATE AGRIC COLLEGE.
XX
PI   Heintz NH,  Houchens CR;
XX
DR   WPI; 2000-465985/40.
XX
PT   Non-viral nucleic acid delivery complex for delivering a nucleic acid
PT   molecule into a cell comprises a modular polypeptide.
XX
PS   Example 5; Page 103; 115pp; English.
XX
CC   AAA57738-39 were annealed together and used as a probe for human RIP60.
CC   RIP60 is a zinc finger protein. The nucleic acid binding domain of the
CC   RIP60 polypeptide is used to construct a non-viral nucleic acid delivery
CC   complex comprising a modular polypeptide. The complex comprises a modular
CC   peptide containing a nucleic acid binding domain and a nucleic acid
CC   condensation domain that bind with and condense a nucleic acid molecule
CC   of more than 50 kilobases in length. The complex also comprises one or
CC   more polypeptides selected from a cell recognition domain, a protein
CC   transduction domain, a protein degradation domain, an intracellular
CC   targeting domain, a protein interaction domain, an epitope domain and a
CC   protein purification domain. The complexes are used to deliver a nucleic
CC   acid to a cell. The nucleic acids delivered are of various sizes and
CC   preferably greater than 50 kilobases, especially more than 100 or more
CC   than 200 kilobases in length
XX
SQ   Sequence 21 BP; 4 A; 2 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1923 TTTTTTTCAGTGTTAAG 1939
              ||||||| ||| |||||
Db          4 TTTTTTTTAGTATTAAG 20


RESULT 4810
AAA57739/c
ID   AAA57739 standard; DNA; 21 BP.
XX
AC   AAA57739;
XX
DT   20-OCT-2000  (first entry)
XX
DE   Oligonuleotide probe OCH38 for human RIP60 polynucleotides.
XX
KW   Human; RIP60; zinc finger protein; nucleic acid delivery complex;
KW   nucleic acid binding domain; nucleic acid condensation domain; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200040723-A2.
XX
PD   13-JUL-2000.
XX
PF   04-JAN-2000; 2000WO-US000212.
XX
PR   04-JAN-1999;   99US-0114743P.
PR   04-JAN-1999;   99US-0114745P.
XX
PA   (UYVE-) UNIV VERMONT & STATE AGRIC COLLEGE.
XX
PI   Heintz NH,  Houchens CR;
XX
DR   WPI; 2000-465985/40.
XX
PT   Non-viral nucleic acid delivery complex for delivering a nucleic acid
PT   molecule into a cell comprises a modular polypeptide.
XX
PS   Example 5; Page 103; 115pp; English.
XX
CC   AAA57738-39 were annealed together and used as a probe for human RIP60.
CC   RIP60 is a zinc finger protein. The nucleic acid binding domain of the
CC   RIP60 polypeptide is used to construct a non-viral nucleic acid delivery
CC   complex comprising a modular polypeptide. The complex comprises a modular
CC   peptide containing a nucleic acid binding domain and a nucleic acid
CC   condensation domain that bind with and condense a nucleic acid molecule
CC   of more than 50 kilobases in length. The complex also comprises one or
CC   more polypeptides selected from a cell recognition domain, a protein
CC   transduction domain, a protein degradation domain, an intracellular
CC   targeting domain, a protein interaction domain, an epitope domain and a
CC   protein purification domain. The complexes are used to deliver a nucleic
CC   acid to a cell. The nucleic acids delivered are of various sizes and
CC   preferably greater than 50 kilobases, especially more than 100 or more
CC   than 200 kilobases in length
XX
SQ   Sequence 21 BP; 12 A; 3 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1923 TTTTTTTCAGTGTTAAG 1939
              ||||||| ||| |||||
Db         18 TTTTTTTTAGTATTAAG 2


RESULT 4811
AAA73988
ID   AAA73988 standard; DNA; 21 BP.
XX
AC   AAA73988;
XX
DT   08-JAN-2001  (first entry)
XX
DE   HIV primer 2ENV-R2.
XX
KW   Human immunodeficiency virus; HIV; internal positive control; IPC;
KW   target DNA; nucleic acid amplification; infection;
KW   microorganism detection; PCR primer; ss.
XX
OS   Human immunodeficiency virus.
XX
PN   EP1026261-A2.
XX
PD   09-AUG-2000.
XX
PF   01-FEB-2000; 2000EP-00300790.
XX
PR   03-FEB-1999;   99US-0118495P.
XX
PA   (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.
XX
PI   Preston GM,  Backus JW;
XX
DR   WPI; 2000-516095/47.
XX
PT   Reducing primer-dimer formation during target nucleic acid amplification
PT   involves contacting primer-carrier admixture comprising amplification
PT   primers and carrier nucleic acid with target nucleic acid.
XX
PS   Example 1; Page 5; 12pp; English.
XX
CC   The present sequence is a PCR primer used in an experiment to monitor the
CC   effect of adding carrier nucleic acid to a HIV amplification reaction.
CC   The reaction reagents include a target nucleic acid, one or more
CC   oligonucleotide amplification primers specific to the target nucleic
CC   acid, a nucleic acid polymerase and one or more magnesium salts. An
CC   internal positive control (IPC) DNA was used as the target nucleic acid.
CC   An IPC nucleic acid is a synthetic nucleic acid sequence cloned into a
CC   plasmid vector which is subsequently linearised, typically by the action
CC   of a restriction endonuclease. An IPC will typically have multiple primer
CC   binding sequences surrounding a generic probe-binding region, and acts as
CC   a generic control against false negative results in nucleic acid
```

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CC   amplification reactions. The present sequence was used in an example of
CC   methods for enhancing the specificity of nucleic acid amplification by
CC   carrier nucleic acid. The methods are useful in diagnostic tests for
CC   infectious microorganisms
XX
SQ   Sequence 21 BP; 6 A; 8 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        734 CAGACAGTCATTCGCAA 750
              ||||| |||| ||||||
Db          3 CAGACGGTCAGTCGCAA 19


RESULT 4812
ADE80908/c
ID   ADE80908 standard; DNA; 21 BP.
XX
AC   ADE80908;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Streptococcus pneumoniae yphC gene PCR primer #3.
XX
KW   yphC; yqjK; antibacterial agent; bacterial infection; PCR; primer; ss.
XX
OS   Streptococcus pneumoniae.
XX
PN   WO200014200-A2.
XX
PD   16-MAR-2000.
XX
PF   09-SEP-1999;   99WO-US020993.
XX
PR   09-SEP-1998;   98US-0099578P.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Fritz C,  Youngman P,  Guzman L;
XX
DR   WPI; 2000-256958/22.
XX
PT   Isolated nucleic acid molecule encoding bacterial yphC and yqjK
PT   polypeptides is used for identifying antibacterial agents.
XX
PS   Disclosure; SEQ ID NO 30; 85pp; English.
XX
CC   The invention comprises the DNA and corresponding protein sequences of
CC   two genes, termed "yphC" and "yqjK" from Streptococcus pneumoniae, which
CC   are essential for the survival of a wide range of bacteria. The DNA and
CC   protein sequences of the invention are useful for identifying
CC   antibacterial agents for the treatment of a bacterial infection (e.g.
CC   Streptococcus pneumoniae). The present DNA sequence represents a PCR
CC   primer that was used in the exemplification of the invention.
XX
SQ   Sequence 21 BP; 2 A; 6 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        460 CCAGCAGCAGGCCTGGC 476
              |||||| |||| |||||
Db         21 CCAGCAACAGGACTGGC 5


RESULT 4813
AAS06843/c
ID   AAS06843 standard; DNA; 21 BP.
XX
AC   AAS06843;
XX
DT   12-SEP-2001  (first entry)
XX
DE   SNP containing protein kinase DNA sequence #12.
XX
KW   Human; protein kinase; PTK; STK; cancer; cardiovascular disease; SNP;
KW   metabolic disorder; immune related disease; neurological disorder;
KW   neurodegenerative disorder; inflammatory disorder; infectious disease;
KW   reproductive disorder; gene therapy; single nucleotide polymorphism; ds.
XX
OS   Homo sapiens.
XX
PN   WO200138503-A2.
XX
PD   31-MAY-2001.
XX
PF   22-NOV-2000; 2000WO-US032085.
XX
PR   24-NOV-1999;   99US-0167482P.
XX
PA   (SUGE-) SUGEN INC.
XX
PI   Plowman GD,  Whyte D,  Manning G,  Sudarsanam S,  Martinez R;
PI   Flanagan P,  Clary D;
XX
DR   WPI; 2001-343950/36.
XX
PT   Nucleic acids encoding human kinase polypeptides, useful for preventing
PT   diagnosing and/or treating e.g. cancer, immune, cardiovascular and
PT   neuronal-associated diseases, and microbial infections.
XX
PS   Example 8B; Page 329; 433pp; English.
XX
CC   AAS06832-AAS06897 represent part of a polynucleotide sequence encoding
CC   for novel human protein kinases where a single nucleotide polymorphism
CC   (SNP) has been identified. The SNP occurs at the last position of the
CC   present sequence. The sequences are described relating to the invention
CC   of novel human protein kinases #1-57 (AAU03501-AAU03557). The novel
CC   protein kinases have been identified as members of the tyrosine or
CC   serine/threonine kinase (PTK and STK) families. The polynucleotides
CC   encoding protein kinases and the polypeptides may be used in the
CC   prevention, diagnosis and treatment of diseases associated with
CC   inappropriate kinase expression. For example, they may be used to treat
CC   cancers (especially cancers of haematopoietic origin), cardiovascular
CC   disease (e.g. atherosclerosis), metabolic disorders (e.g. diabetes),
CC   immune related diseases (e.g. rheumatoid arthritis), neurological
CC   disorders (e.g. schizophrenia), neurodegenerative disorders (e.g.
CC   Parkinson's disease), inflammatory disorders (e.g. asthma), infectious
CC   disease (e.g. HIV) and reproductive disorders (e.g. infertility).
CC   Additionally, polynucleotides encoding protein kinases may be used for
CC   gene therapy and as DNA probes in diagnostic assays. The protein kinase
CC   polypeptides may be used as antigens in the production of antibodies
CC   against the protein kinases and in assays to identify modulators of
CC   protein kinase expression and activity
XX
SQ   Sequence 21 BP; 3 A; 7 C; 5 G; 5 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        704 GTCGACGACCAGCACCT 720
              ||||| |||||||||| |
Db         18 GTCGAAGACCAGCACGT 2


RESULT 4814
AAF97680
ID   AAF97680 standard; DNA; 21 BP.
XX
AC   AAF97680;
XX
DT   06-JUN-2001  (first entry)
```

```
XX
DE   Human gene single nucleotide polymorphism #2441.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,G)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 213; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 7 A; 8 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1062 TGACTCTCCTGACATCC 1078
              |||| | ||||||||||
Db          2 TGACACCCCTGACATCC 18


RESULT 4815
AAF97544
ID   AAF97544 standard; DNA; 21 BP.
XX
AC   AAF97544;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #2305.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,t)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 205; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 4 A; 8 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        232 CAGCAATGGGAATCCGC 248
              ||||||||| |||| |
Db          1 CAGCAATGGGCATCCCC 17


RESULT 4816
AAF97617/c
ID   AAF97617 standard; DNA; 21 BP.
XX
AC   AAF97617;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #2378.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
```

```
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,T)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 210; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 7 A; 4 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1128 GTGAAGCCGAATTTCCT 1144
              || ||||||| ||||||
Db         21 GTTAAGCCGAGTTTCCT 5


RESULT 4817
AAF97628
ID   AAF97628 standard; DNA; 21 BP.
XX
AC   AAF97628;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #2389.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,G)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
FT
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 210; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 11 A; 4 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1505 AAACACAGGAAATAAAA 1521
              ||| || ||||||||||
Db          5 AAATACTGGAAATAAAA 21


RESULT 4818
AAF96104
ID   AAF96104 standard; DNA; 21 BP.
XX
AC   AAF96104;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #865.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,A)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
FT
XX
PN   WO200118250-A2.
```

```
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 109; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 8 A; 6 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1455 CTGGAGACCAGAGTCCA 1471
              ||||||||  ||||  |||
Db          1 CTGGAGACAAGAGCCCA 17


RESULT 4819
AAF96440
ID   AAF96440 standard; DNA; 21 BP.
XX
AC   AAF96440;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #1201.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,A)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 133; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 6 A; 6 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1584 GCACAGACTGGGAACCC 1600
              ||  |||||  |||||||||
Db          1 GCTCAGACAGGGAACCC 17


RESULT 4820
AAF97321
ID   AAF97321 standard; DNA; 21 BP.
XX
AC   AAF97321;
XX
DT   06-JUN-2001  (first entry)
XX
DE   Human gene single nucleotide polymorphism #2082.
XX
KW   Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW   polymorphism; vascular disease; coronary artery disease; forensics;
KW   myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW   pulmonary embolism; paternity test; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,A)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200118250-A2.
XX
PD   15-MAR-2001.
XX
PF   07-SEP-2000; 2000WO-US024503.
XX
PR   10-SEP-1999;   99US-0153357P.
PR   26-JUL-2000; 2000US-0220947P.
PR   16-AUG-2000; 2000US-0225724P.
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XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Lander ES,  Gargill M,  Ireland JS,  Bolk S,  Daley GQ,  Mccarthy JJ;
XX
DR   WPI; 2001-226749/23.
XX
PT   Nucleic acids comprising single nucleotide polymorphisms, useful in
PT   applications such as forensics, paternity testing, medicine, genetic
PT   analysis and phenotype correlations to diseases such as diabetes and
PT   atherosclerosis.
XX
PS   Example; Page 189; 242pp; English.
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 4 A; 7 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1035 CGGCCGGGAGGCGGAAA 1051
              | ||||||||  ||||||
Db          4 CCGCCGGGAGCCGGAAA 20


RESULT 4821
AAH62300/c
ID   AAH62300 standard; DNA; 21 BP.
XX
AC   AAH62300;
XX
DT   12-SEP-2001  (first entry)
XX
DE   GLI-kruppel family member HKR3 polymorphism containing DNA fragment #201.
XX
KW   Single nucleotide polymorphism; SNP; human; cancer; inflammation;
KW   heart disease; paternity testing; forensic science; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,C)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200138576-A2.
XX
PD   31-MAY-2001.
XX
PF   17-NOV-2000; 2000WO-US031639.
XX
PR   24-NOV-1999;   99US-0167334P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
XX
PI   Cargill M,  Ireland JS,  Lander ES;
XX
DR   WPI; 2001-367705/38.
XX
PT   New nucleic acid segments of the human genome, particularly from genes
PT   including polymorphic sites,for phenotype correlation, forensics,
PT   paternity testing, medicine and genetic analysis.
XX
PS   Claim 1; Page 45; 80pp; English.
XX
CC   DNA sequences AAH62100 - AAH62688 represent segments of human genes which
CC   contain single nucleotide polymorphisms (SNPs). A method is included in
CC   the invention for analysing a nucleic acid sample, which consists of
CC   determining the base occupying any one of the polymorphic sites given in
CC   the SNP containing sequences. The nucleotide sequences can be used in the
CC   diagnosis or monitoring of diseases, such as cancer, inflammation, heart
CC   diseases, diseases of the cardiovascular system, and infection by
CC   microorganisms. The oligonucleotides are also useful in the manufacture
CC   of a medicament for the treatment or prophylaxis of the diseases, and as
CC   a pharmaceutical. SNP containing oligonucleotides are useful in
CC   applications such as phenotype correlation, forensics, paternity testing,
CC   medicine and genetic analysis
XX
SQ   Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2341 TCCCCGTGGAGGTTCTG 2357
              ||||||| |||| ||||
Db         18 TCCCCGTAGAGGCTCTG 2


RESULT 4822
AAH28431
ID   AAH28431 standard; DNA; 21 BP.
XX
AC   AAH28431;
XX
DT   17-SEP-2001  (first entry)
XX
DE   PCR primer for intergenic spacer between 16S and 23S rRNA genes.
XX
KW   Intergenic spacer; Chlamydiaceae; 16S rRNA; 23S rRNA; Region A; Region B;
KW   chlamydial infection; PCR primer; ss.
XX
OS   Chlamydia suis.
XX
PN   US6261769-B1.
XX
PD   17-JUL-2001.
XX
PF   31-MAR-1998;   98US-00052333.
XX
PR   31-MAR-1998;   98US-00052333.
XX
PA   (USDA ) US SEC OF AGRIC.
XX
PI   Everett KDE,  Andersen AA;
XX
DR   WPI; 2001-440857/47.
XX
PT   New primers and probes derived from sequences of intergenic spacer
PT   between 16S and 23S genes and region of Domain I in 23S region of
PT   Chlamydiaceae, useful for assaying and identifying all strains of
PT   Chlamydiaceae.
XX
PS   Claim 2; Col 11; 89pp; English.
XX
CC   The present PCR primer was used to amplify intergenic spacer target
CC   sequences derived from Chlamydiaceae. The sequences comprise the
CC   intergenic spacer between the 16S and the 23S rRNA genes, including the
CC   far downstream end of the 16S and the far upstream end of the 23S domain
CC   I flanking intergenic spacer (referred to as Region A), and secondarily,
CC   a 131 bp region in the 3' end of Domain I (referred to as Region B). The
CC   sequences provide suitable target sequences for developing probes and
CC   primers which are useful for identifying and detecting Chlamydiaceae. The
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CC   primers and probes can be used to identify the presence of Chlamydiaceae
CC   in a test sample, or to distinguish one strain from another, and for
CC   diagnosing chlamydial infections in humans and animals
XX
SQ   Sequence 21 BP; 5 A; 3 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1926 TTTTCAGTGTTAAGGTA 1942
              ||| || ||||||||||
Db          3 TTTGCATTGTTAAGGTA 19


RESULT 4823
AAD12205
ID   AAD12205 standard; DNA; 21 BP.
XX
AC   AAD12205;
XX
DT   25-SEP-2001  (first entry)
XX
DE   Human CYP450 2C19 gene amplifying reverse PCR primer 2C19_1_1R.
XX
KW   Human; gene structure; phenotypic expression; guanosine cofactor;
KW   germline variation analysis; exon-intron boundary; Tetrahymena rRNA;
KW   cytochrome P450 2C19; CYP450 2C19; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200153529-A2.
XX
PD   26-JUL-2001.
XX
PF   17-JAN-2001; 2001WO-US001461.
XX
PR   20-JAN-2000; 2000US-00488127.
XX
PA   (GENO-) GENOME THERAPEUTICS CORP.
XX
PI   Thomann H,  Fitzgerald MS;
XX
DR   WPI; 2001-465380/50.
XX
PT   Determining structure of genes whose sequence is not known from cDNA, by
PT   sequencing the gene or gene across exon-intron boundaries using evenly
PT   spaced primers comprising nucleic acids that hybridize to the cDNA of
PT   gene.
XX
PS   Example 2; Page 19; 81pp; English.
XX
CC   The present invention relates to a method for determining gene structure
CC   when the genomic sequence is unknown. The method involves sequencing the
CC   gene across exon-intron boundaries using evenly spaced primers or tiled
CC   primers. The tiled primers comprises nucleic acids that hybridise to the
CC   known cDNA sequence of the gene at about 100-300 base intervals and the
CC   gene comprises the template. Gene structure can be determined without the
CC   need to sequence the entire gene. The method provides information
CC   necessary to determine gene structure and phenotypic expression without
CC   the need to sequence entire chromosomal copy of the gene or fragment. The
CC   methods are useful in germline sequence variation analysis. The method is
CC   also useful for determining the boundaries between regions of nucleic
CC   acids that were separated by intervening sequence, and also for
CC   determining boundaries present in genes containing group 1 type introns
CC   such as Tetrahymena rRNA, where self-splicing occurs in the presence of
CC   guanosine cofactor. The present sequence is a PCR primer used for
CC   amplifying human CYP450 2C19 gene
XX
SQ   Sequence 21 BP; 5 A; 5 C; 2 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1068 TCCTGACATCCTTAGTA 1084
              | ||||||||||| ||
Db          2 TGCTGACATCCTTAATA 18


RESULT 4824
AAH91420/c
ID   AAH91420 standard; DNA; 21 BP.
XX
AC   AAH91420;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Human inflammatory bowel disease associated polymorphic site #495.
XX
KW   Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW   single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW   chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    10
FT                   /*tag=  a
FT                   /note= "SNP, optionally T or C at this position"
XX
PN   WO200142511-A2.
XX
PD   14-JUN-2001.
XX
PF   11-DEC-2000; 2000WO-US033632.
XX
PR   10-DEC-1999;   99US-0170257P.
PR   10-APR-2000; 2000US-0196046P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI   Daly M,  Hudson TJ,  Lander ES,  Rioux J,  Siminovitch K;
XX
DR   WPI; 2001-367874/38.
XX
PT   Testing for the presence of polymorphisms associated with inflammatory
PT   bowel disease, using a hybridization assay.
XX
PS   Claim 1; Page 59; 463pp; English.
XX
CC   The present invention describes a method for detecting the presence of
CC   polymorphisms associated with inflammatory bowel diseases such as
CC   ulcerative colitis and Crohn's disease. The methods can be used to detect
CC   the presence of genetic polymorphisms associated with inflammatory bowel
CC   disease and correlating their occurrence with disease states. They may be
CC   used in this way for phenotypic correlations, forensics, paternity
CC   testing, medicine and genetic analysis. The present sequence is a
CC   polymorphic site described in the exemplification of the invention
XX
SQ   Sequence 21 BP; 1 A; 3 C; 2 G; 14 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   83.3%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAAA 2798
              ||| ||||  ||||||||
Db         18 AATGGAAANCAAAAAAAA 1


RESULT 4825
AAF85206
ID   AAF85206 standard; DNA; 21 BP.
XX
```

```
AC   AAF85206;
XX
DT   09-JUL-2001  (first entry)
XX
DE   PCR primer used to amplify a probe for cDNA encoding ZmMAD3.
XX
KW   MAD3; ZmMADS3; flower development; flower structure; seed development;
KW   fruit development; transgenic plant; PCR primer; ss.
XX
OS   Zea mays.
XX
PN   WO200131017-A2.
XX
PD   03-MAY-2001.
XX
PF   25-OCT-2000; 2000WO-EP010484.
XX
PR   25-OCT-1999;   99EP-00120842.
XX
PA   (SUED-) SUEDWESTDEUTSCHE SAATZUCHT.
XX
PI   Dresselhaus T,  Heuer S,  Loerz H;
XX
DR   WPI; 2001-316335/33.
XX
PT   New polynucleotide encoding ZmMADS3 protein, for use in cloning and
PT   expression in plant a nucleic acid sequence encoding protein influencing
PT   flower structure, function and/or its seed and/or fruit development.
XX
PS   Example 3; Page 70; 71pp; English.
XX
CC   PCR primers AAF85204-05 were used to amplify a probe for cDNA encoding a
CC   maize MAD3 gene, designated ZmMADS3. The ZmMAD3 protein is essential for
CC   flower development and is active in flowers, in particular, in immature
CC   flowers and female flowers, but also in the mature embryo sac of maize.
CC   The ZmMAD3 protein is also active in nodes and adjacent cell layers.
CC   ZmMAD3 polynucleotides and polypeptides are useful influencing flower
CC   structure, function and seed or fruit development in transgenic plants
XX
SQ   Sequence 21 BP; 5 A; 4 C; 4 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2516 AGGTTTTATTCATATAT 2532
              ||||||||||||||  ||
Db          3 AGGTTTTATTCATGCAT 19


RESULT 4826
AAH89104/c
ID   AAH89104 standard; DNA; 21 BP.
XX
AC   AAH89104;
XX
DT   27-FEB-2002  (first entry)
XX
DE   Human polymorphic oligonucleotide M84129 fragment #11.
XX
KW   Human; single nucleotide polymorphic; SNP; forensic science;
KW   paternity testing; phenotypic trait; genetic mapping; animal breeding;
KW   plant breeding; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,c)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200134840-A2.
XX
PD   17-MAY-2001.
XX
PF   10-NOV-2000; 2000WO-US030766.
XX
PR   10-NOV-1999;   99US-0164596P.
XX
PA   (GLAX ) GLAXO GROUP LTD.
PA   (AFFY-) AFFYMETRIX INC.
XX
PI   Au K,  Chen J,  Patil N,  Thomas D;
XX
DR   WPI; 2001-335945/35.
XX
PT   New polymorphic sites derived from the human genome are useful to
PT   determine sites correlating with phenotypic traits, particularly disease,
PT   and also in forensics and paternity testing.
XX
PS   Claim 85; Page 13; 43pp; English.
XX
CC   The present invention relates to human oligonucleotides comprising a
CC   single nucleotide polymorphic site (SNP: AAH88797-AAH89219). The present
CC   sequence is one such oligonucleotide. The oligonucleotides can be used in
CC   forensics, paternity testing, correlation of polymorphisms with
CC   phenotypic traits, genetic mapping of phenotypic traits and marker
CC   assisted breeding of animals and crop plants
XX
SQ   Sequence 21 BP; 4 A; 5 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2492 TGGGGTAATCTATAACA 2508
              |||||||||| || |||
Db         18 TGGGGTAATCCATCACA 2


RESULT 4827
AAS11076
ID   AAS11076 standard; DNA; 21 BP.
XX
AC   AAS11076;
XX
DT   24-OCT-2001  (first entry)
XX
DE   Bacterial 16s RNA antisense oligomer #42.
XX
KW   Antisense; bacterial 16s ribosomal RNA; rRNA; bacterial infection; human;
KW   food grain supplement; livestock; poultry; therapeutic; ss.
XX
OS   Mycobacterium tuberculosis.
XX
PN   WO200142457-A2.
XX
PD   14-JUN-2001.
XX
PF   29-NOV-2000; 2000WO-US042391.
XX
PR   29-NOV-1999;   99US-0168150P.
XX
PA   (AVIB-) AVI BIOPHARMA INC.
XX
PI   Iversen PL;
XX
DR   WPI; 2001-457295/49.
XX
PT   Antibacterial compound, useful for treating bacterial infections and as
PT   livestock and poultry food supplement, comprises antisense
PT   oligonucleotides complementary to bacterial 16S and 23S rRNA.
XX
PS   Disclosure; Page 28; 62pp; English.
XX
CC   AAS11035-AAS11157 represent the coding sequences of bacterial 16S
```

```
CC   ribosomal RNA (rRNA) antisense oligomers. These sequences are
CC   antibacterial compounds comprising substantially uncharged antisense
CC   oligomers containing 8-40 nucleotide subunits, including a targeting
CC   nucleic acid sequence at least 10 nucleotides in length which is
CC   complementary to a bacterial 16S or 23S rRNA nucleic acid sequence. The
CC   antisense oligomers are used for treating a bacterial infection in a
CC   human or a mammalian animal produced by Escherichia coli, Salmonella
CC   typhimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria
CC   gonorrhoea, Helicobacter pylori, Bartonella henselae, Haemophilus
CC   influenza, Shigella dysenterae, Staphylococcus aureus, Mycobacterium
CC   tuberculosis, Streptococcus pneumoniae, Treponema palladium and Chlamydia
CC   trachomatis. The antibacterial compound may be used as a food grain
CC   supplement in livestock and poultry food composition
XX
SQ   Sequence 21 BP; 3 A; 9 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1393 GTCTGCCCTGCAGAACT 1409
              |||| |||||||| |||
Db          3 GTCTCCCCTGCAGTACT 19


RESULT 4828
AAS11058
ID   AAS11058 standard; DNA; 21 BP.
XX
AC   AAS11058;
XX
DT   24-OCT-2001  (first entry)
XX
DE   Bacterial 16s RNA antisense oligomer #24.
XX
KW   Antisense; bacterial 16s ribosomal RNA; rRNA; bacterial infection; human;
KW   food grain supplement; livestock; poultry; therapeutic; ss.
XX
OS   Pseudomonas aeruginosa.
XX
PN   WO200142457-A2.
XX
PD   14-JUN-2001.
XX
PF   29-NOV-2000; 2000WO-US042391.
XX
PR   29-NOV-1999;   99US-0168150P.
XX
PA   (AVIB-) AVI BIOPHARMA INC.
XX
PI   Iversen PL;
XX
DR   WPI; 2001-457295/49.
XX
PT   Antibacterial compound, useful for treating bacterial infections and as
PT   livestock and poultry food supplement, comprises antisense
PT   oligonucleotides complementary to bacterial 16S and 23S rRNA.
XX
PS   Disclosure; Page 26; 62pp; English.
XX
CC   AAS11035-AAS11157 represent the coding sequences of bacterial 16S
CC   ribosomal RNA (rRNA) antisense oligomers. These sequences are
CC   antibacterial compounds comprising substantially uncharged antisense
CC   oligomers containing 8-40 nucleotide subunits, including a targeting
CC   nucleic acid sequence at least 10 nucleotides in length which is
CC   complementary to a bacterial 16S or 23S rRNA nucleic acid sequence. The
CC   antisense oligomers are used for treating a bacterial infection in a
CC   human or a mammalian animal produced by Escherichia coli, Salmonella
CC   typhimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria
CC   gonorrhoea, Helicobacter pylori, Bartonella henselae, Haemophilus
CC   influenza, Shigella dysenterae, Staphylococcus aureus, Mycobacterium
CC   tuberculosis, Streptococcus pneumoniae, Treponema palladium and Chlamydia
CC   trachomatis. The antibacterial compound may be used as a food grain
CC   supplement in livestock and poultry food composition
XX
SQ   Sequence 21 BP; 6 A; 7 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2009 CAGAGATCAAGTCCTCT 2025
              |||||| |||| |||||
Db          1 CAGAGAGCAAGCCCTCT 17


RESULT 4829
AAS11038/c
ID   AAS11038 standard; DNA; 21 BP.
XX
AC   AAS11038;
XX
DT   24-OCT-2001  (first entry)
XX
DE   Bacterial 16s RNA antisense oligomer #4.
XX
KW   Antisense; bacterial 16s ribosomal RNA; rRNA; bacterial infection; human;
KW   food grain supplement; livestock; poultry; therapeutic; ss.
XX
OS   Salmonella typhimurium.
XX
PN   WO200142457-A2.
XX
PD   14-JUN-2001.
XX
PF   29-NOV-2000; 2000WO-US042391.
XX
PR   29-NOV-1999;   99US-0168150P.
XX
PA   (AVIB-) AVI BIOPHARMA INC.
XX
PI   Iversen PL;
XX
DR   WPI; 2001-457295/49.
XX
PT   Antibacterial compound, useful for treating bacterial infections and as
PT   livestock and poultry food supplement, comprises antisense
PT   oligonucleotides complementary to bacterial 16S and 23S rRNA.
XX
PS   Disclosure; Page 26; 62pp; English.
XX
CC   AAS11035-AAS11157 represent the coding sequences of bacterial 16S
CC   ribosomal RNA (rRNA) antisense oligomers. These sequences are
CC   antibacterial compounds comprising substantially uncharged antisense
CC   oligomers containing 8-40 nucleotide subunits, including a targeting
CC   nucleic acid sequence at least 10 nucleotides in length which is
CC   complementary to a bacterial 16S or 23S rRNA nucleic acid sequence. The
CC   antisense oligomers are used for treating a bacterial infection in a
CC   human or a mammalian animal produced by Escherichia coli, Salmonella
CC   typhimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria
CC   gonorrhoea, Helicobacter pylori, Bartonella henselae, Haemophilus
CC   influenza, Shigella dysenterae, Staphylococcus aureus, Mycobacterium
CC   tuberculosis, Streptococcus pneumoniae, Treponema palladium and Chlamydia
CC   trachomatis. The antibacterial compound may be used as a food grain
CC   supplement in livestock and poultry food composition
XX
SQ   Sequence 21 BP; 6 A; 6 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        169 GTTGTGGAAAATAACCG 185
              ||||||| ||||||||
Db         21 GTTGTGGTTAATAACCG 5
```

```
RESULT 4830
ABK53146/c
ID   ABK53146 standard; DNA; 21 BP.
XX
AC   ABK53146;
XX
DT   29-AUG-2003  (revised)
DT   12-AUG-2002  (first entry)
XX
DE   HIV-1 Gag gene specific oligonucleotide primer #10.
XX
KW   HIV; human immunodeficiency virus; ss; primer; gag; pol; protease;
KW   reverse transcriptase; infection; PCR.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US2002055095-A1.
XX
PD   09-MAY-2002.
XX
PF   31-AUG-2001; 2001US-00944036.
XX
PR   01-SEP-2000; 2000US-0229790P.
XX
PA   (YANG/) YANG Y Y.
PA   (BREN/) BRENTANO S T.
PA   (BABO/) BABOLA O.
PA   (TRAN/) TRAN N.
PA   (VERN/) VERNET G.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-462902/49.
XX
PT   New nucleic acid oligomers for amplifying a nucleotide sequence from HIV-
PT   1 and probes for detecting the amplified product are specific for gag and
PT   pol regions and are useful to detect different subtypes of HIV-1.
XX
PS   Claim 1; Page 27; 37pp; English.
XX
CC   This invention relates to a series of nucleic acid oligomers for
CC   amplifying and detecting a nucleotide sequence of human immunodeficiency
CC   virus type 1 (HIV-1). The invention also comprises a labeled
CC   oligonucleotide that specifically hybridises to an HIV-1 sequence derived
CC   from gag or pol sequences, having one of the sequences fully defined in
CC   the specification, and a method for detecting HIV-1 in a biological
CC   sample, comprising mixing the sample with two or more of the
CC   amplification oligomers that specifically amplify at least one HIV-1
CC   target sequence within gag and a pol sequence which is a protease or
CC   reverse transcriptase sequence, amplifying the target, and detecting the
CC   amplified product. The oligonucleotides of the invention may be used to
CC   diagnose HIV-1 infection. The presents sequence represents a PCR primer
CC   used to amplify the HIV-1 Gag gene in the HIV detection method of the
CC   invention. (Updated on 29-AUG-2003 to standardise OS field)
XX
SQ   Sequence 21 BP; 3 A; 5 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||||| | ||
Db         18 ATTATCAGAAGGAGCCA 2


RESULT 4831
ABK53111/c
ID   ABK53111 standard; DNA; 21 BP.
XX
AC   ABK53111;
XX
DT   29-AUG-2003  (revised)
DT   12-AUG-2002  (first entry)
XX
DE   HIV-1 Gag gene specific oligonucleotide primer #3.
XX
KW   HIV; human immunodeficiency virus; ss; primer; gag; pol; protease;
KW   reverse transcriptase; infection; PCR.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US2002055095-A1.
XX
PD   09-MAY-2002.
XX
PF   31-AUG-2001; 2001US-00944036.
XX
PR   01-SEP-2000; 2000US-0229790P.
XX
PA   (YANG/) YANG Y Y.
PA   (BREN/) BRENTANO S T.
PA   (BABO/) BABOLA O.
PA   (TRAN/) TRAN N.
PA   (VERN/) VERNET G.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-462902/49.
XX
PT   New nucleic acid oligomers for amplifying a nucleotide sequence from HIV-
PT   1 and probes for detecting the amplified product are specific for gag and
PT   pol regions and are useful to detect different subtypes of HIV-1.
XX
PS   Claim 1; Page 15; 37pp; English.
XX
CC   This invention relates to a series of nucleic acid oligomers for
CC   amplifying and detecting a nucleotide sequence of human immunodeficiency
CC   virus type 1 (HIV-1). The invention also comprises a labeled
CC   oligonucleotide that specifically hybridises to an HIV-1 sequence derived
CC   from gag or pol sequences, having one of the sequences fully defined in
CC   the specification, and a method for detecting HIV-1 in a biological
CC   sample, comprising mixing the sample with two or more of the
CC   amplification oligomers that specifically amplify at least one HIV-1
CC   target sequence within gag and a pol sequence which is a protease or
CC   reverse transcriptase sequence, amplifying the target, and detecting the
CC   amplified product. The oligonucleotides of the invention may be used to
CC   diagnose HIV-1 infection. The presents sequence represents a PCR primer
CC   used to amplify the HIV-1 Gag gene in the HIV detection method of the
CC   invention. (Updated on 29-AUG-2003 to standardise OS field)
XX
SQ   Sequence 21 BP; 3 A; 5 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||||| | ||
Db         18 ATTATCAGAAGGAGCCA 2


RESULT 4832
ABK65817
ID   ABK65817 standard; DNA; 21 BP.
XX
AC   ABK65817;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human single nucleotide polymorphism #437.
XX
KW   Human; single nucleotide polymorphism; SNP; sickle cell anaemia;
KW   agammaglobulinaemia, diabetes insipidus; Lesch-Nyhan syndrome;
KW   muscular dystrophy; Wiskott-Aldrich syndrome; Fabry's disease;
```

KW familial hypercholesterolaemia; polycystic kidney disease; cancer;
KW hereditary spherocytosis; Von Willebrand's disease; tuberous sclerosis;
KW hereditary haemorrhagic telangiectasia; familial colonic polyposis;
KW Ehlers-Danlos syndrome; osteogenesis imperfecta; autoimmune disease;
KW acute intermittent porphyria; inflammation; nervous system disorder;
KW infection; rheumatoid arthritis; multiple sclerosis; diabetes;
KW systemic lupus erythematosus; Graves disease; longevity; obesity;
KW baldness; fertility; forensic; paternity testing; ss.
XX
OS Homo sapiens.
XX
PN US2002037508-A1.
XX
PD 28-MAR-2002.
XX
PF 18-JAN-2001; 2001US-00765081.
XX
PR 19-JAN-2000; 2000US-0176861P.
XX
PA (CARG/) CARGILL M.
PA (IREL/) IRELAND J S.
PA (LAND/) LANDER E S.
XX
PI Cargill M, Ireland JS, Lander ES;
XX
DR WPI; 2002-315108/35.
XX
PT Nucleic acid comprising single nucleotide polymorphisms, useful in
PT forensics, paternity testing and diagnosis of disease.
XX
PS Claim 1; Page 91; 96pp; English.
XX
CC The invention relates to a nucleic acid comprising single nucleotide
CC polymorphisms (SNPs) associated with diseases. The nucleic acids
CC comprising the SNPs and probes and primers for detecting them may be used
CC in assays for the diagnosis of diseases associated with SNPs (such as
CC sickle cell anaemia, agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan
CC syndrome, muscular dystrophy, Wiskott-Aldrich syndrome, Fabry's disease,
CC familial hypercholesterolaemia, polycystic kidney disease, hereditary
CC spherocytosis, Von Willebrand's disease, tuberous sclerosis, hereditary
CC haemorrhagic telangiectasia, familial colonic polyposis, Ehlers-Danlos
CC syndrome, osteogenesis imperfecta, and acute intermittent porphyria,
CC symptoms of, or susceptibility to, multifactorial diseases of which a
CC component is or may be genetic, such as autoimmune diseases,
CC inflammation, cancer, diseases of the nervous system, and infection by
CC pathogenic microorganisms, autoimmune diseases including rheumatoid
CC arthritis, multiple sclerosis, diabetes (insulin-dependent and non-
CC independent), systemic lupus erythematosus and Graves disease, cancers
CC including cancers of the bladder, brain, breast, colon, oesophagus,
CC kidney, leukaemia, liver, lung, oral cavity, ovary, pancreas, prostate,
CC skin, stomach and uterus, longevity, appearance (e.g., baldness,
CC obesity), strength, speed, endurance, fertility, and susceptibility or
CC receptivity to particular drugs or therapeutic treatments), in forensics
CC and in paternity testing. ABK65381-ABK65841 represent human single
CC nucleotide polymorphisms of the invention
XX
SQ Sequence 21 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 1 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 78.9%; Pred. No. 4.5e+03;
Matches 15; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 1172 AGACCTCATCTTGGAGGAC 1190
||||| ||:||||||| |
Db 2 AGACCAGATYTTGGAGGTC 20

RESULT 4833
ABK88537/c
ID ABK88537 standard; DNA; 21 BP.
XX
AC ABK88537;
XX
DT 07-OCT-2002 (first entry)
XX
DE Human cholecystokinin associated PCR primer P1.
XX
KW Panic disorder; polymorphism; human cholecystokinin; upper stream; CCK;
KW PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN JP2002171990-A.
XX
PD 18-JUN-2002.
XX
PF 08-DEC-2000; 2000JP-00375090.
XX
PR 08-DEC-2000; 2000JP-00375090.
XX
PA (RIKA) RIKAGAKU KENKYUSHO.
XX
DR WPI; 2002-569888/61.
XX
PT Diagnosis and identification of panic disorder caused by polymorphism of
PT upper stream region of human cholecystokinin gene.
XX
PS Claim 6; Page 6; 13pp; Japanese.
XX
CC The invention describes a method of diagnosing a panic disorder with a
CC polymorphism of the upper stream region of human cholecystokinin (CCK)
CC gene. This sequence represents a human cholecystokinin gene associated
CC PCR primer
XX
SQ Sequence 21 BP; 4 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 898 GGCTGAAGTACAGAGGC 914
||||| ||||||| |||
Db 19 GGCTGGAGTACAGTGGC 3

RESULT 4834
ABQ78573
ID ABQ78573 standard; DNA; 21 BP.
XX
AC ABQ78573;
XX
DT 25-NOV-2002 (first entry)
XX
DE RT-PCR primer used to amplify mucin 5AC (MUC5AC) cDNA.
XX
KW Human; mucin 4; MUC4; peripheral blood monocyte; PBMC; tumour marker;
KW pancreatic cancer; pancreatic adenocarcinoma; MUC5AC; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200259368-A1.
XX
PD 01-AUG-2002.
XX
PF 07-DEC-2001; 2001WO-US046887.
XX
PR 08-DEC-2000; 2000US-00733444.
XX
PA (UYNE-) UNIV NEBRASKA.
XX
PI Batra SK, Brand RE, Ringel J, Faulamnn G, Lohr M, Varsheny GC;
XX
DR WPI; 2002-643346/69.
XX
PT Diagnosing pancreatic adenocarcinoma, particularly for the early
PT detection of the pancreatic cancer, comprises employing primers or

PT antibodies that are specific for the MUC4-encoding nucleic acid or MUC4
PT protein, respectively.
XX
PS Example 1; Page 29; 63pp; English.
XX
CC PCR primers ABQ78573-74 were used to amplify human mucin 5AC (MUC5AC)
CC cDNA. Peripheral blood monocytes (PBMCs) isolated from pancreatic cancer
CC patients are positive for MUC4, while MUC4 expression is not observed in
CC PBMCs isolated from normal patients or from patients suffering from
CC chronic pancreatitis or other types of cancers. Expression of MUC4 can
CC therefore be used as an indication of pancreatic cancer. The
CC specification describes a method for detecting a MUC4-encoding nucleic
CC acid or a MUC4 protein in a biological sample as a tumour marker for
CC pancreatic cancer. The method comprises contacting a nucleic acid
CC extracted from the sample with oligonucleotide primers that specifically
CC hybridise to the MUC4 nucleic acid; or contacting a biological sample
CC with an antibody (or its fragment) that has specific binding affinity for
CC MUC4. The method is useful for diagnosing pancreatic cancer or pancreatic
CC adenocarcinoma, particularly for early detection of pancreatic cancer
XX
SQ Sequence 21 BP; 5 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 457 CAGCCAGCAGCAGGCCT 473
|| |||||||||||
Db 5 CATCCAGCAGCAGGGCT 21

RESULT 4835
ABV99452
ID ABV99452 standard; DNA; 21 BP.
XX
AC ABV99452;
XX
DT 27-JAN-2003 (first entry)
XX
DE Human NOV5 forward PCR primer Ag554.
XX
KW Human; anti-HIV; cytostatic; antidiabetic; antiasthmatic; cachexia; AIDS;
KW antiinflammatory; cardiant; haemostatic; neuroprotective; anorectic;
KW nootropic; immunosuppressive; osteopathic; antiparkinsonian; cancer;
KW antiinfertility; cerebroprotective; gene therapy; NOVX; NOV; fertility;
KW metabolic disorder; diabetes; obesity; infectious disease; anorexia;
KW neurodegenerative disease; Alzheimer's disease; Parkinson's disease;
KW immune disorder; haematopoietic disorder; cardiovascular disorder;
KW bronchial asthma; dyslipidemia; metabolic disturbance; neurogenesis; PCR;
KW metabolic syndrome X; wasting disorder; cell differentiation; primer;
KW cell proliferation; haematopoiesis; wound healing; angiogenesis; ss.
XX
OS Homo sapiens.
XX
PN WO200272771-A2.
XX
PD 19-SEP-2002.
XX
PF 08-MAR-2002; 2002WO-US007288.
XX
PR 08-MAR-2001; 2001US-0274101P.
PR 08-MAR-2001; 2001US-0274194P.
PR 08-MAR-2001; 2001US-0274281P.
PR 08-MAR-2001; 2001US-0274322P.
PR 09-MAR-2001; 2001US-0274849P.
PR 12-MAR-2001; 2001US-0275235P.
PR 13-MAR-2001; 2001US-0275578P.
PR 13-MAR-2001; 2001US-0275579P.
PR 13-MAR-2001; 2001US-0275601P.
PR 14-MAR-2001; 2001US-0276000P.
PR 16-MAR-2001; 2001US-0276776P.
PR 19-MAR-2001; 2001US-0276994P.
PR 20-MAR-2001; 2001US-0277239P.
PR 20-MAR-2001; 2001US-0277321P.
PR 20-MAR-2001; 2001US-0277327P.
PR 20-MAR-2001; 2001US-0277338P.
PR 21-MAR-2001; 2001US-0277791P.
PR 22-MAR-2001; 2001US-0277833P.
PR 23-MAR-2001; 2001US-0278152P.
PR 26-MAR-2001; 2001US-0278894P.
PR 27-MAR-2001; 2001US-0278999P.
PR 27-MAR-2001; 2001US-0279036P.
PR 28-MAR-2001; 2001US-0279344P.
PR 30-MAR-2001; 2001US-0279995P.
PR 30-MAR-2001; 2001US-0280233P.
PR 02-APR-2001; 2001US-0280802P.
PR 02-APR-2001; 2001US-0280822P.
PR 02-APR-2001; 2001US-0280900P.
PR 04-APR-2001; 2001US-0281194P.
PR 13-APR-2001; 2001US-0283675P.
PR 30-APR-2001; 2001US-0287424P.
PR 02-MAY-2001; 2001US-0288066P.
PR 03-MAY-2001; 2001US-0288342P.
PR 03-MAY-2001; 2001US-0288528P.
PR 15-MAY-2001; 2001US-0291190P.
PR 16-MAY-2001; 2001US-0291099P.
PR 16-MAY-2001; 2001US-0291240P.
PR 30-MAY-2001; 2001US-0294485P.
PR 31-MAY-2001; 2001US-0294889P.
PR 31-MAY-2001; 2001US-0294899P.
PR 18-JUN-2001; 2001US-0299027P.
PR 19-JUN-2001; 2001US-0299303P.
PR 19-JUN-2001; 2001US-0299310P.
PR 10-JUL-2001; 2001US-0304354P.
PR 31-JUL-2001; 2001US-0309198P.
PR 16-AUG-2001; 2001US-0312903P.
PR 10-SEP-2001; 2001US-0318462P.
PR 12-SEP-2001; 2001US-0318770P.
PR 27-SEP-2001; 2001US-0325430P.
PR 27-SEP-2001; 2001US-0325681P.
PR 18-OCT-2001; 2001US-0330380P.
PR 31-OCT-2001; 2001US-0335301P.
PR 14-NOV-2001; 2001US-0332172P.
PR 14-NOV-2001; 2001US-0332271P.
PR 14-NOV-2001; 2001US-0332272P.
PR 14-NOV-2001; 2001US-0333184P.
PR 14-NOV-2001; 2001US-0333272P.
PR 21-NOV-2001; 2001US-0332094P.
PR 03-DEC-2001; 2001US-0337426P.
PR 03-DEC-2001; 2001US-0338092P.
PR 04-DEC-2001; 2001US-0337185P.
PR 03-JAN-2002; 2002US-0345705P.
PR 08-MAR-2002; 2002US-00093463.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Rastelli L, Mezes PD, Smithson G, Guo X, Gerlach V, Casman SJ;
PI Boldog FL, Li L, Zerhusen BD, Tchernev VT, Gangolli EA, Vernet CAM;
PI Pena CEA, Burgess CE, Liu X, Spytek KA, Gorman L, Spaderna SK;
PI Voss EZ, Malyankar UM, Anderson DW, Patturajan M, Miller CE;
PI Taupier RJ, Padigaru M, Shenoy SG, Kekuda R, Gusev VY, Pochart PF;
PI Zhong M;
XX
DR WPI; 2002-732824/79.
XX
PT New NOVX polypeptides and polynucleotides, useful for preventing,
PT diagnosing or treating NOVX-associated disorders e.g. diabetes, cancer,
PT Alzheimer's disease, dyslipidemias, obesity, immune or hematopoietic
PT disorders, and asthma.
XX
PS Example C; Page 312; 619pp; English.
XX
CC The present invention relates to new isolated proteins (NOVX) and their
CC coding sequences (ABV99327-ABV99595 and ABP70049-ABP70149), where X is
CC any number from 1 to 48. The NOVX proteins and coding sequences are
CC useful in the manufacture of a medicament for treating a syndrome

CC associated with a human disease, preferably a NOVX-associated disorder.
CC The NOVX coding sequences and proteins are useful for treating,
CC preventing or diagnosing diseases such as metabolic disorders, diabetes,
CC obesity, infectious disease, anorexia, cancer-associated cachexia,
CC cancer, neurodegenerative diseases, Alzheimer's disease, Parkinson's
CC disease, immune disorders, haematopoietic disorders, cardiovascular
CC disorders, fertility, bronchial asthma, AIDS, dyslipidemia, metabolic
CC disturbances associated with obesity, metabolic syndrome X or wasting
CC disorders associated with chronic diseases or various cancers. The NOVX
CC coding sequences and proteins may also be used as targets for the
CC identification of small molecules that modulate or inhibit e.g.
CC neurogenesis, cell differentiation, cell proliferation, haematopoiesis,
CC wound healing and angiogenesis, in gene therapy, in generation of
CC antibodies that bind immunospecifically to NOVX substances for use in
CC therapeutic or diagnostic methods. The present sequence is a PCR primer,
CC which was used in an example from the invention
XX
SQ Sequence 21 BP; 8 A; 5 C; 6 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 789 CCTGTCAGAAGGAGCTG 805
|||| |||||| |||||
Db 1 CCTGGCAGAAGAAGCTG 17

RESULT 4836
ABL44206/c
ID ABL44206 standard; DNA; 21 BP.
XX
AC ABL44206;
XX
DT 11-APR-2002 (first entry)
XX
DE Human chromosome 1p36-35 PCR primer SEQ ID NO:1250.
XX
KW Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW PCR primer; ss.
XX
OS Homo sapiens.
XX
PN JP2001321190-A.
XX
PD 20-NOV-2001.
XX
PF 12-MAR-2001; 2001JP-00068285.
XX
PR 10-MAR-2000; 2000JP-00066716.
XX
PA (RIKA) RIKAGAKU KENKYUSHO.
PA (GENO-) GENOTEX YG.
XX
DR WPI; 2002-144136/19.
XX
PT Arraying genome clones.
XX
PS Claim 4; Page 29; 528pp; Japanese.
XX
CC The present invention describes a method of arraying genome clones. The
CC method comprises: (a) clones of the genomic libraries contained in
CC multiwell plates numbered for discrimination are mixed in each of the
CC multiwell plates; (b) a primer designed based on the chromosome marker
CC sequence is added to the mixture to carry out an amplification reaction;
CC (c) a signal corresponding to the marker is detected from the resultant
CC amplified product to specify the discrimination Nos. of the multiwell
CC plates containing the clones having said marker sequence; (d) the order
CC of the markers is changed so that the same discrimination Nos. succeed to
CC the maximum in the specified discrimination Nos. to array the multiwell
CC plates; (e) the clones in the multiwell plates of the specified
CC discrimination Nos. are mixed respectively in each wells of longitudinal
CC and lateral directions; (f) the mixed clones are cultured and the
CC resultant cultures are amplified by using the above primer; (g) signals
CC are detected from the amplified products; (h) the clones in the multiwell
CC plates are specified from the detected result; and (i) the clones are
CC reconstituted as the positions on the chromosome and arrayed. The
CC microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC represent PCR primers for human chromosome 21q22.1, which are
CC specifically claimed for use in the present invention
XX
SQ Sequence 21 BP; 12 A; 2 C; 6 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2160 TTCTCCTTTTTTTTTT 2176
||| |||||||| ||||
Db 18 TTCCCCTTTTTTCTTTT 2

RESULT 4837
ABK81198
ID ABK81198 standard; DNA; 21 BP.
XX
AC ABK81198;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated polynucleotide #1.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR; ds.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Disclosure; Page 88; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any

```
CC   disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC   displaying cells. This sequence represents a polynucleotide associated
CC   with the transport of biologically active agents across cellular barriers
XX
SQ   Sequence 21 BP; 5 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        588 ATGCCTACCGCCGCTCC 604
              ||||||| ||||||||
Db          1 ATGCCTAAAGCCGCTCC 17


RESULT 4838
AAD22905/c
ID   AAD22905 standard; DNA; 21 BP.
XX
AC   AAD22905;
XX
DT   26-FEB-2002  (first entry)
XX
DE   Human soluble LIGHT DNA generating mutagenic forward PCR primer #1.
XX
KW   Human; herpes virus entry-mediated; HVEM; p30; immunosuppressive; tumour;
KW   inflammatory disorder; herpes virus infection; lymphocyte proliferation;
KW   neuroprotective; dermatological; virucide; gene therapy; PCR primer; SLE;
KW   systemic lupus erythematosus; autoimmune disease; diabetes mellitus;
KW   rheumatoid arthritis; multiple sclerosis; myasthenia gravis; LIGHT; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    17
FT                   /*tag=  a
FT                   /note= "Represented in the specification as X"
XX
PN   WO200179496-A2.
XX
PD   25-OCT-2001.
XX
PF   11-APR-2001; 2001WO-US011857.
XX
PR   12-APR-2000; 2000US-00549096.
XX
PA   (LJOL-) LA JOLLA INST ALLERGY & IMMUNOLOGY.
XX
PI   Ware CF;
XX
DR   WPI; 2002-026029/03.
XX
PT   Novel polypeptide useful for inhibiting herpes virus production in cells,
PT   comprises isolated or recombinant homotrimeric p30 polypeptides which
PT   bind to lymphotoxin receptor and to herpes virus entry-mediated
PT   polypeptide (HVEM).
XX
PS   Example 12; Page 59; 104pp; English.
XX
CC   The invention relates to an isolated or recombinant homotrimeric p30
CC   polypeptide comprising a monomer polypeptide with a molecular weight of
CC   30 kDa. p30 is found on the membrane protein and also functions as a
CC   cytokine. p30 is also called LIGHT because this is homologous to
CC   Lymphotoxins, exhibits Inducible expression, and competes with HSV
CC   Glycoprotein D for HVEM, a receptor expressed T lymphocytes.p30 binds to
CC   lymphotoxin beta receptor or to herpes virus entry-mediated polypeptide
CC   (HVEM). p30 is useful for inhibiting virus production in cells and for
CC   modulating a lymphotoxin beta receptor (LTV SR)-mediated cellular
CC   response. p30 is useful for treating inflammatory disorders, tumours, for
CC   blocking the entry of herpes virus into cells, and to treat or prevent
CC   herpes virus infections such as beta herpes virus and cytomegalovirus.
CC   p30 is also useful for inhibiting p30-mediated cellular response e.g.,
CC   inhibition of a lymphocyte (a pathogenic effector cell) cellular response
CC   such as lymphocyte proliferation. The inhibited lymphocyte response
CC   modulates a T or B lymphoma or an autoimmune disease such as rheumatoid
CC   arthritis, insulin dependent diabetes mellitus, multiple sclerosis,
CC   systemic lupus erythematosus (SLE) or myasthenia gravis. Also, the
CC   inhibited lymphocyte response modulates a reaction to a transplant. p30
CC   DNA is useful in gene therapy. The present sequence is a mutagenic PCR
CC   primer used for generating soluble LIGHT DNA also referred as p30
XX
SQ   Sequence 21 BP; 2 A; 7 C; 7 G; 4 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   83.3%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        464 CAGCAGGCCTGGCCCGGC 481
              ||| ||||| ||||| ||
Db         20 CAGNAGGCCAGGCCCAGC 3


RESULT 4839
ABX04726
ID   ABX04726 standard; DNA; 21 BP.
XX
AC   ABX04726;
XX
DT   15-JAN-2003  (first entry)
XX
DE   Human endogenous retrovirus k (herv-k) associated probe #90.
XX
KW   Human; endogenous retrovirus; herv; prostate cancer; testicular cancer;
KW   multiple sclerosis; insulin-dependent diabetes mellitus; HML-2 protease;
KW   cancer; transgenic animal; probe; ss.
XX
OS   Human endogenous retrovirus.
XX
PN   WO200246477-A2.
XX
PD   13-JUN-2002.
XX
PF   07-DEC-2001; 2001WO-US047824.
XX
PR   07-DEC-2000; 2000US-0251830P.
PR   07-DEC-2001; 2001US-00016604.
XX
PA   (CHIR ) CHIRON CORP.
XX
PI   Garcia P,  Hardy SF,  Williams LT,  Escobedo J;
XX
DR   WPI; 2002-691475/74.
XX
PT   Novel isolated polypeptides useful for diagnosis of prostate cancer.
XX
PS   Claim 18; Page 151; 152pp; English.
XX
CC   The invention describes novel isolated polypeptides (I, Ib) useful for
CC   diagnosing prostate cancer comprising obtaining a patient sample
CC   containing prostate cells and detecting the presence or absence of an
CC   expression product of a HML-2 endogenous retrovirus in a patient sample.
CC   Polynucleotides associated with (I) are useful for diagnosis or treatment
CC   of testicular cancer, multiple sclerosis or insulin-dependent diabetes
CC   mellitus. An inhibitor of a HML-2 protease and a transdominant negative
CC   mutant of HML-2 cORF are also useful in the manufacture of a medicament
CC   for treating prostate cancer. (I) and (Ib) are useful for generating
CC   antibodies specific to the polypeptides associated with cancer, as
CC   targets for therapeutic intervention, and in immunising a transgenic
CC   animal. This sequence represents a probe used for detecting the presence
CC   of human endogenous retrovirus (herv) of the HML-2 sub-group in prostate
CC   tissue
XX
SQ   Sequence 21 BP; 7 A; 4 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
```

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        721 GTTGCTGCACGATCAGA 737
              ||| ||||| |||||||
Db          5 GTTCCTGCAGGATCAGA 21


RESULT 4840
AAL45508/c
ID   AAL45508 standard; DNA; 21 BP.
XX
AC   AAL45508;
XX
DT   29-AUG-2003  (revised)
DT   06-JUN-2002  (first entry)
XX
DE   HIV-1 gag amplification oligomer SEQ ID NO: 46.
XX
KW   HIV-1; gag gene; pol gene; PCR; primer; drug resistance; genetic subtype;
KW   probe; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   WO200220852-A1.
XX
PD   14-MAR-2002.
XX
PF   01-SEP-2000; 2000WO-US024117.
XX
PR   01-SEP-2000; 2000WO-US024117.
XX
PA   (GENP-) GEN-PROBE INC.
PA   (INMR ) BIOMERIEUX SA.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-292273/33.
XX
PT   New nucleic acid oligomer, useful for detecting selected regions of gag
PT   and pol genes of human immune deficiency virus, particularly for
PT   assessing drug resistance.
XX
PS   Claim 1; Page 62; 82pp; English.
XX
CC   The present invention provides a number of nucleic acid oligomers which
CC   can be used to amplify the gag and pol genes of human immunodeficiency
CC   virus type I (HIV-1). These are used to detect regions of the gag and pol
CC   genes, especially regions associated with drug resistance, and also for
CC   identifying genetic subtypes of the virus. The present sequence is an
CC   oligomer of the invention. (Updated on 29-AUG-2003 to standardise OS
CC   field)
XX
SQ   Sequence 21 BP; 3 A; 5 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||||  | ||
Db         18 ATTATCAGAAGGAGCCA 2


RESULT 4841
AAL45473/c
ID   AAL45473 standard; DNA; 21 BP.
XX
AC   AAL45473;
XX
DT   29-AUG-2003  (revised)
DT   06-JUN-2002  (first entry)
XX
DE   HIV-1 gag amplification oligomer SEQ ID NO: 11.
XX
KW   HIV-1; gag gene; pol gene; PCR; primer; drug resistance; genetic subtype;
KW   probe; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   WO200220852-A1.
XX
PD   14-MAR-2002.
XX
PF   01-SEP-2000; 2000WO-US024117.
XX
PR   01-SEP-2000; 2000WO-US024117.
XX
PA   (GENP-) GEN-PROBE INC.
PA   (INMR ) BIOMERIEUX SA.
XX
PI   Yang YY,  Brentano ST,  Babola O,  Tran N,  Vernet G;
XX
DR   WPI; 2002-292273/33.
XX
PT   New nucleic acid oligomer, useful for detecting selected regions of gag
PT   and pol genes of human immune deficiency virus, particularly for
PT   assessing drug resistance.
XX
PS   Claim 1; Page 40; 82pp; English.
XX
CC   The present invention provides a number of nucleic acid oligomers which
CC   can be used to amplify the gag and pol genes of human immunodeficiency
CC   virus type I (HIV-1). These are used to detect regions of the gag and pol
CC   genes, especially regions associated with drug resistance, and also for
CC   identifying genetic subtypes of the virus. The present sequence is an
CC   oligomer of the invention. (Updated on 29-AUG-2003 to standardise OS
CC   field)
XX
SQ   Sequence 21 BP; 3 A; 5 C; 5 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1729 ATTATCAGAAGGTGACA 1745
              ||||||||||||  | ||
Db         18 ATTATCAGAAGGAGCCA 2


RESULT 4842
ADE53231/c
ID   ADE53231 standard; DNA; 21 BP.
XX
AC   ADE53231;
XX
DT   29-JAN-2004  (first entry)
XX
DE   FEN-1 related DNA used within the scope of the invention, #367.
XX
KW   Flap endonuclease-1; FEN-1; endonuclease; structure-specific nuclease;
KW   invasive cleavage structure; thermostable; DNA polymerase; 5' nuclease;
KW   viral infection; bacterial infection; cancer; forensic analysis;
KW   paternity determination; ds.
XX
OS   Methanocaldococcus jannaschii.
XX
PN   WO200270755-A2.
XX
PD   12-SEP-2002.
XX
PF   15-NOV-2001; 2001WO-US044953.
XX
PR   15-NOV-2000; 2000US-00713601.
PR   17-NOV-2000; 2000US-00714935.
XX
PA   (THIR-) THIRD WAVE TECHNOLOGIES INC.
```

```
XX
PI   Lyamichev VI,  Kaiser MW,  Lyamicheva N;
XX
DR   WPI; 2002-750464/81.
XX
PT   New composition useful for detecting and characterizing nucleic acid
PT   sequences and sequence variants for detecting the presence of viral or
PT   bacterial infections or cancer, comprises purified or chimerical FEN-1
PT   endonuclease.
XX
PS   Example 65; SEQ ID NO 413; 871pp; English.
XX
CC   The invention discloses a new composition (I) which comprises a purified
CC   flap endonuclease-1 (FEN-1) from e.g. Sulfolobus solfataricus,
CC   Pyrobaculom aerophilum or a chimerical FEN-1 endonuclease having a
CC   portion of the above endonuclease in addition to that of Pyrococcus
CC   horikoshii and Aeropyrum pernix. Also claimed is a composition comprising
CC   an isolated nucleic acid sequence encoding the endonuclease mentioned
CC   above, a composition comprising a vector having the nucleic acid sequence
CC   cited above, a composition comprising a host cell and vector cited above,
CC   a mixture comprising a first structure-specific nuclease selected from
CC   the species mentioned in composition (I), and a purified second structure
CC   -specific nuclease and detecting a target sequence, comprising: (a)
CC   providing a sample suspected of containing the target sequence,
CC   oligonucleotides capable of forming an invasive cleavage structure in the
CC   presence of the target sequence, and a FEN-1 endonuclease selected from
CC   the species cited above and (b) exposing the sample to the
CC   oligonucleotides and FEN-1 endonuclease. The second structure-specific
CC   nuclease also comprises a thermostable DNA polymerase. It has a 5'
CC   nuclease derived from a DNA polymerase altered in amino acid sequence
CC   such that it exhibits reduced DNA synthetic activity from that of the
CC   wild-type DNA polymerase but retains substantially the same 5' nuclease
CC   activity of the wild-type DNA polymerase. The second structure is
CC   selected from CLEAVASE BN enzyme, CLEAVASE DA enzyme, CLEAVASE DN enzyme,
CC   CLEAVASE DV enzyme, CLEAVASE BN/thrombin enzyme, CLEAVASE TThDN enzyme,
CC   T. aquaticus DNA polymerase, T. thermophilus DNA polymerase, E. coli Exo
CC   III and S. cerevisiae Rad1/Rad10 complex. The nucleic acid treatment kit
CC   comprises (I) and oligonucleotides capable of forming an invasive
CC   cleavage structure in the presence of a target nucleic acid. The
CC   oligonucleotides comprise: (a) a first oligonucleotide having a 5'
CC   portion complementary to a first portion of a target nucleic acid and (b)
CC   a second oligonucleotide comprising a 5' portion complementary to a
CC   second portion of the target nucleic acid downstream of and contiguous to
CC   the first portion and a 3' portion. The 3' portion of the second
CC   oligonucleotide comprises a single 3' terminal nucleotide not
CC   complementary to the target nucleic acid. Additionally, the kit has a
CC   third oligonucleotide complementary to a third portion of the target
CC   nucleic acid upstream of the first portion of the first target nucleic
CC   acid. In detecting a target sequence, the oligonucleotides and
CC   endonuclease are mixed under conditions where an invasive cleavage
CC   structure is formed between the target sequence and the oligonucleotides
CC   if the target sequence is present in the sample, where the invasive
CC   cleavage structure is cleaved by the endonuclease to form a cleavage
CC   product. The composition is useful in detecting and characterising
CC   specific nucleic acid sequences and sequence variants which can be used
CC   in detecting the presence of viral or bacterial infections, and other
CC   diseases such as cancer. The composition may also be used in forensic
CC   analysis or for paternity determinations. The sequence presented is a FEN
CC   -1 related DNA used within the scope of the invention.
XX
SQ   Sequence 21 BP; 11 A; 3 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1768 AGCTTTTTTTTTTTGAA 1784
              |||| ||| ||||||||
Db         20 AGCTCTTTCTTTTTGAA 4


RESULT 4843
ABZ95191
ID   ABZ95191 standard; DNA; 21 BP.
XX
AC   ABZ95191;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human eosinophil peroxidase antisense fragment no.1056.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 10433; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 21 BP; 0 A; 4 C; 7 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2566 CTCTGTTCTTGGCTTGG 2582
              |||||||||||  ||||
Db          1 CTCTGTTCTTGTTTTGG 17


RESULT 4844
ABQ83714
```

```
ID   ABQ83714 standard; DNA; 21 BP.
XX
AC   ABQ83714;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Exemplary oligonucleotide sequence.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor; ss.
XX
OS   Synthetic.
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Page 39; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents an
CC   oligonucleotide which is given in the exemplification of the present
CC   invention
XX
SQ   Sequence 21 BP; 5 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       588 ATGCCTACCGCCGCTCC 604
             ||||||| ||||||||
Db         1 ATGCCTAAAGCCGCTCC 17


RESULT 4845
ABT33998/c
ID   ABT33998 standard; DNA; 21 BP.
XX
AC   ABT33998;
XX
DT   29-MAY-2003  (first entry)
XX
DE   Human pigmentation trait-related PCR primer - SEQ ID No 97.
XX
KW   Human; single nucleotide polymorphism; SNP; ss; melanocortin-1 receptor;
KW   genetic pigmentation trait; MC1R; agouti signaling protein; ASIP; race;
KW   hair colour; eye colour; forensic tool; PCR; primer.
XX
OS   Homo sapiens.
XX
PN   WO200297047-A2.
XX
PD   05-DEC-2002.
XX
PF   28-MAY-2002; 2002WO-US016789.
XX
PR   25-MAY-2001; 2001US-0293560P.
PR   21-JUN-2001; 2001US-0300187P.
PR   07-AUG-2001; 2001US-0310781P.
PR   17-SEP-2001; 2001US-0323662P.
PR   26-OCT-2001; 2001US-0344418P.
PR   15-NOV-2001; 2001US-0334674P.
PR   02-JAN-2002; 2002US-0346303P.
XX
PA   (DNAP-) DNAPRINT GENOMICS INC.
XX
PI   Frudakis T;
XX
DR   WPI; 2003-239091/23.
XX
PT   Inferring genetic pigmentation trait such as hair/eye color or shade from
PT   nucleic acid sample of human subject, by identifying a pigmentation-
PT   related haplotype allele of a pigmentation gene in the sample.
XX
PS   Example 1; Page 96; 396pp; English.
XX
CC   The invention comprises a method for inferring a genetic pigmentation
CC   trait of a human. The method involves identifying a single nucleotide
CC   polymorphism (SNP) in a pigmentation gene - where the pigmentation gene
CC   is not melanocortin-1 receptor (MC1R) and agouti signaling protein
CC   (ASIP). The method of the invention is useful for inferring a genetic
CC   pigmentation trait of a human, especially for inferring the race of a
CC   human subject. The method is useful for inferring a genetic pigmentation
CC   trait such as hair shade or colour, or eye shade or colour of a human
CC   subject. The method may be used as a forensic tool for obtaining
CC   information relating to physical characteristics of a potential crime
CC   victim or a perpetrator of a crime from a nucleic acid sample present at
CC   a crime scene. The present PCR primer is used in the exemplification of
CC   the invention
XX
SQ   Sequence 21 BP; 2 A; 5 C; 5 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy      1503 AGAAACACAGGAAATAA 1519
             |||| |||||||||| |
Db        21 AGAAGCACAGGAAATTA 5


RESULT 4846
ACC70856
ID   ACC70856 standard; DNA; 21 BP.
```

```
XX
AC   ACC70856;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human G-protein coupled receptor 901 PCR primer #1.
XX
KW   Human; anorectic; antidiabetic; antilipemic; hypothalamus;
KW   G-protein coupled receptor 901; obesity; diabetes; hyperlipaemia;
KW   cibophobia; anorexia nervosa; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003030936-A1.
XX
PD   17-APR-2003.
XX
PF   02-OCT-2002; 2002WO-JP010250.
XX
PR   02-OCT-2001; 2001JP-00306872.
XX
PA   (SUMU ) SUMITOMO PHARM CO LTD.
XX
PI   Sugaru E,  Tsuchida A,  Yamanaka M,  Taiji M;
XX
DR   WPI; 2003-354886/33.
XX
PT   Inhibitors of expression or activity of G-protein coupled receptor 901
PT   for treatment of lifestyle-related diseases and cibophobia.
XX
PS   Example 5; Page 69; 91pp; Japanese.
XX
CC   The present invention relates to novel remedies for the treatment of
CC   diseases containing as an active component an inhibitor of the expression
CC   or activity of hypothalamus-expressed G-protein coupled receptor 901 and
CC   for treatment of cibophobia containing as an active component a
CC   potentiator of the expression or activity of G-protein coupled receptor
CC   901. The diseases which can be treated include obesity, diabetes and
CC   hyperlipaemia, and cibophobia (anorexia nervosa). The present PCR primer
CC   was used in an example from the invention
XX
SQ   Sequence 21 BP; 2 A; 9 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        156 CGCCGGACGCCATGTTG 172
              ||||||  |||||||| |
Db          4 CGCCGGCCGCCATGTGG 20


RESULT 4847
ACA90032
ID   ACA90032 standard; DNA; 21 BP.
XX
AC   ACA90032;
XX
DT   10-JUL-2003  (first entry)
XX
DE   Cardiovascular disease differential gene expression related primer #79.
XX
KW   Cardiovascular disease; arteriosclerosis; ischaemia; angina pectoris;
KW   myocardial infarction; cardiant; antiarteriosclerotic; antianginal;
KW   gene therapy; differential gene expression; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031650-A2.
XX
PD   17-APR-2003.
XX
PF   02-OCT-2002; 2002WO-EP011034.
XX
PR   08-OCT-2001; 2001GB-00024145.
XX
PA   (FARE ) BAYER AG.
XX
PI   Munnes M,  Gehrmann M,  Wick M,  Schmitz G;
XX
DR   WPI; 2003-403108/38.
XX
PT   Predicting, diagnosing or prognosing a cardiovascular disease, e.g.
PT   angina, ischemia, myocardial infarction or arteriosclerosis by detection
PT   of a polynucleotide in a biological sample comprises detecting a
PT   hybridization complex.
XX
PS   Example 3; Page 105; 454pp; English.
XX
CC   The invention describes a method of predicting, diagnosing or prognosing
CC   a cardiovascular disease by detection of a polynucleotide in a biological
CC   sample comprises hybridising at least one of the polynucleotide to a
CC   nucleic acid material of a biological sample, thus forming a
CC   hybridisation complex, and detecting the hybridisation complex. The
CC   polynucleotides, polypeptides, antisense molecule, antibody and reagent
CC   are useful for preparing compositions for preventing, predicting or
CC   diagnosing, or a medicament for treating a cardiovascular disease, e.g.
CC   arteriosclerosis, ischaemia, angina pectoris, or myocardial infarction.
CC   This sequence represents a primer used to identify genes differentially
CC   regulated in individuals with cardiovascular disease
XX
SQ   Sequence 21 BP; 5 A; 10 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        333 CGCCACCCTACTTTCCC 349
              | ||||||| ||||||
Db          4 CCCCACCCTAGTTTCCC 20


RESULT 4848
ABZ23347/c
ID   ABZ23347 standard; DNA; 21 BP.
XX
AC   ABZ23347;
XX
DT   07-APR-2003  (first entry)
XX
DE   Forward PCR primer used to amplify GGTA1 coding region cDNA.
XX
KW   Antigenic determinant; immunotolerance; cell therapy; liver condition;
KW   xenotransplantation; heart condition; pancreatic condition;
KW   kidney condition; lung condition; GGTA1; PCR; primer; ss.
XX
OS   Sus sp.
XX
PN   WO200292791-A1.
XX
PD   21-NOV-2002.
XX
PF   14-MAY-2002; 2002WO-US015307.
XX
PR   14-MAY-2001; 2001US-0291394P.
PR   13-AUG-2001; 2001US-0312125P.
PR   21-MAR-2002; 2002US-0367090P.
XX
PA   (STEL-) STELL.
XX
PI   Liljedahl M,  Marcantonio D,  Aspland SE;
XX
DR   WPI; 2003-120679/11.
XX
PT   Novel genetically engineered cell in which a gene comprising an antigenic
PT   determinant recognized by a recipient organism has been disrupted, useful
```

PT in cell therapy or xenotransplantation.
XX
PS Example 4E; Page 29; 97pp; English.
XX
CC The specification describes genetically engineered cell in which at least
CC one gene encoding a polypeptide comprising an antigenic determinant which
CC is recognized by a desired recipient organism or at least one gene which
CC encodes a protein associated with the synthesis of a molecule comprising
CC the antigenic determinant has been disrupted. The genetically engineered
CC cell has a reduced level of immunogenicity in the recipient and can be
CC safely transplanted across species. It reduces the amount of medication
CC required to induce a state of immunotolerance in the host. The gentically
CC engineered cells of the invention are useful in cell therapy, or to
CC produce tissues or organs for use in xenotransplantation. They are useful
CC for treating heart conditions (e.g., valvular heart disease), liver
CC conditions (e.g., liver cirrhosis), pancreatic conditions (e.g.,
CC diabetes), kidney conditions (e.g., primary glomerulonephritis), lung
CC conditions (e.g., cystic fibrosis), Alzheimer's disease, stroke,
CC Parkinson's disease, cataracts and Creutzfeldt-Jacob disease. PCR primers
CC ABZ23347-48 were used to amplify the coding region of porcine GGTA1, from
CC a cDNA library constructed into pcDNA3.1. The amplified sequence was
CC identified as an antigenic determinant
XX
SQ Sequence 21 BP; 11 A; 1 C; 5 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2150 ATTGATTTTTTTCTCCT 2166
||| ||| |||||||||
Db 21 ATTCATTATTTTCTCCT 5

RESULT 4849
ADA26144
ID ADA26144 standard; RNA; 21 BP.
XX
AC ADA26144;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human REL-A short interfering nucleic acid SEQ ID NO:279.
XX
KW short interfering nucleic acid; siNA; nuclear factor kappa B; NF-kappaB;
KW RNA interference; vasotropic; nootropic; antiparkinsonian;
KW neuroprotective; cytostatic; antiinflammatory; antiallergic; virucide;
KW anti-HIV; immunosuppressive; anticonvulsant; nephrotropic; gene therapy;
KW modulation; inhibition; restenosis; central nervous system lesion;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; epilepsy;
KW dementia; amyotrophic lateral sclerosis; cancer;
KW polycystic kidney disease; inflammatory disease; allergic disease;
KW viral infection; HIV; autoimmune disease; transplant rejection; ribozyme;
KW human; v-rel reticuloendotheliosis viral oncogene homologue A; REL-A;
KW nuclear factor; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003070970-A2.
XX
PD 28-AUG-2003.
XX
PF 20-FEB-2003; 2003WO-US004951.
XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J, Beigelman L;
XX
DR WPI; 2003-689788/65.
XX
PT New short interfering nucleic acid downregulates expression of the NF-
PT kappaB gene useful e.g. for treatment and diagnosis of cancer and
PT inflammation.
XX
PS Example 3; Page 131; 149pp; English.
XX
CC The present invention describes a short interfering nucleic acid (siNA)
CC that downregulates expression of a nuclear factor kappa B (NF-kappaB)
CC gene by RNA interference. Also described: (1) kits for in vitro or in
CC vivo delivery of siNA; (2) conjugates and/or complexes of siNA; and (3)
CC vectors that express siNA. The siNAs have vasotropic, nootropic,
CC antiparkinsonian, neuroprotective, cytostatic, antiinflammatory,
CC antiallergic, virucide, anti-HIV, immunosuppressive, anticonvulsant and
CC nephrotropic activities, and can be used in gene therapy, and for the
CC modulation (inhibition) of expression or activity of NF-kappaB by RNA
CC interference (siNA target mRNA, RNA splice variants, post-
CC transcriptionally modified RNA, pre-RNA and/or RNA templates). The siNA
CC sequences can be used to modulate expression of NF-kappaB genes, in
CC cells, tissue explants or organisms, e.g. by ex vivo gene therapy, in
CC grafts and transplants for treating restenosis and central nervous system
CC lesions and injuries (Alzheimer's, Parkinson's or Huntington's diseases,
CC epilepsy, dementia or amyotrophic lateral sclerosis) or for treating many
CC cancers, other proliferative diseases (restenosis and polycystic kidney
CC disease), inflammatory and/or allergic diseases, viral infections
CC (including HIV), autoimmune diseases and transplant rejection, and also
CC for drug screening; diagnosis; target identification and validation;
CC genetic engineering; pharmacogenomics; studying gene function and gene
CC mapping (e.g. of single-nucleotide polymorphisms). The present sequence
CC represents human v-rel reticuloendotheliosis viral oncogene homologue A
CC (REL-A) synthetic modified siNA construct, which is used in the
CC exemplification of the present invention. REL-A is a nuclear factor of
CC the kappa light polypeptide gene enhancer in B-cells.
XX
SQ Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 82.4%; Pred. No. 4.5e+03;
Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 689 GACGAGGTGCAGAATGT 705
||| |||:|||||| ||
Db 4 GACAAGGUGCAGAAAGT 20

RESULT 4850
ACC78817/c
ID ACC78817 standard; DNA; 21 BP.
XX
AC ACC78817;
XX
DT 02-SEP-2003 (first entry)
XX
DE Human CD31 (PECAM) amplifying antisense primer.
XX
KW Pluripotent; c-kit; antiparkinsonian; vulnerary; cytostatic; fetal cell;
KW gene therapy; human; CD31; PECAM; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003042405-A2.
XX
PD 22-MAY-2003.
XX
PF 15-NOV-2002; 2002WO-US036966.
XX
PR 15-NOV-2001; 2001US-0335878P.
PR 13-FEB-2002; 2002US-0356295P.

```
XX
PA   (CHIL-) CHILDRENS MEDICAL CENT.
XX
PI   Atala A,  De Coppi P;
XX
DR   WPI; 2003-493308/46.
XX
PT   Producing a population of cells enriched for pluripotent fetal stem
PT   cells, useful for enzyme replacement and gene therapy, comprises
PT   selecting c-kit positive cells from chorionic villus, amniotic fluid or
PT   placenta sample.
XX
PS   Example; Page 32; 57pp; English.
XX
CC   The invention relates to producing a population of cells enriched for
CC   pluripotent fetal stem cells and involves selecting c-kit positive cells
CC   from chorionic villus, amniotic fluid or placenta sample. The methods are
CC   useful for isolating, expanding and differentiating pluripotent fetal
CC   stem cells derived from chorionic villus, amniotic fluid or placenta. The
CC   pluripotent c-kit positive human fetal stem cells are useful for bone
CC   marrow transplantation, autologous/heterologous enzyme replacement
CC   therapy, autologous/heterologous transgene carriers in gene therapy,
CC   autologous/heterologous tissue regeneration and replacement therapy, e.g.
CC   burn and wound dressings, reconstructive treatment by surgical
CC   implantation, tissue engineering, or for treating a disease in a human,
CC   e.g. Parkinson's disease or cancer. Sequences ACC78816-17 represent PCR
CC   primers for human CD31 (PECAM)
XX
SQ   Sequence 21 BP; 8 A; 4 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1110 GGGACTTTGCCTATGTC 1126
              || |||||||||||  ||
Db         17 GGAACTTTGCCTATTTC 1


RESULT 4851
ADC39012
ID   ADC39012 standard; DNA; 21 BP.
XX
AC   ADC39012;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human ELAM-1 targeted primer #11.
XX
KW   ss; primer; immunosuppressive; antisense therapy;
KW   corneal allograft rejection; intercellular adhesion molecule-1; ICAM-1;
KW   extracellular adhesion molecule-1; ELAM-1;
KW   vascular cell adhesion molecule-1; VCAM-1; corneal explant.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_difference 1. .21
FT                   /*tag=  a
FT                   /note= "all internucleotide linkages are phosphodiester
FT                   bonds"
XX
PN   WO2003032920-A2.
XX
PD   24-APR-2003.
XX
PF   16-OCT-2002; 2002WO-US033236.
XX
PR   18-OCT-2001; 2001US-00982262.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Mirabelli CK;
XX
DR   WPI; 2003-403142/38.
XX
PT   Inhibiting corneal allograft rejection, by contacting an allograft with a
PT   formulation having an oligonucleotide targeted to intercellular adhesion
PT   molecule-1, extracellular adhesion molecule-1 or vascular cell adhesion
PT   molecule-1.
XX
PS   Example 12; SEQ ID NO 38; 106pp; English.
XX
CC   The invention relates to a method of inhibiting corneal allograft
CC   rejection, by contacting the allograft with a topical formulation
CC   comprising an antisense oligonucleotide targeted to intercellular
CC   adhesion molecule-1 (ICAM-1), extracellular adhesion molecule-1 (ELAM-1)
CC   or vascular cell adhesion molecule-1 (VCAM-1). The oligonucleotide is
CC   useful for inhibiting corneal allograft rejection or for preserving a
CC   corneal explant ex vivo, where the explant is human. This sequence
CC   corresponds to one of the oligonucleotide of the invention.
XX
SQ   Sequence 21 BP; 8 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2489 TGATGGGGTAATCTATA 2505
              ||| |||||||||||  |
Db          5 TGAGGGGGTAATCTACA 21


RESULT 4852
ADD14396/c
ID   ADD14396 standard; DNA; 21 BP.
XX
AC   ADD14396;
XX
DT   01-JAN-2004  (first entry)
XX
DE   Human src biomarker forward PCR primer SEQ ID NO:585.
XX
KW   predictor set; protein tyrosine kinase activity modulator;
KW   protein tyrosine kinase pathway; protein tyrosine kinase; cytostatic;
KW   gene therapy; drug sensitivity; genetic profile; cancer; human;
KW   PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO2003062395-A2.
XX
PD   31-JUL-2003.
XX
PF   17-JAN-2003; 2003WO-US001981.
XX
PR   18-JAN-2002; 2002US-0350061P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Huang F,  Fairchild CR,  Lee FY,  Shaw P;
XX
DR   WPI; 2003-636735/60.
XX
PT   New polynucleotides and polypeptides for predicting the activity of
PT   compounds that interact with protein tyrosine kinases and/or protein
PT   tyrosine kinase pathways.
XX
PS   Example 2; SEQ ID NO 585; 139pp; English.
XX
CC   The present invention describes a predictor set comprising a plurality of
CC   polynucleotides or polypeptides whose expression pattern is predictive of
CC   the response of cells to treatment with a compound that modulates protein
CC   tyrosine kinase activity or members of the protein tyrosine kinase
```

CC pathway. Also described: (1) predicting whether a compound is capable of
CC modulating the activity of cells, comprising obtaining a sample of cells,
CC determining whether the cells express a plurality of markers, and
CC correlating the expression of the markers to the compound's ability to
CC modulate the activity of the cells; (2) a plurality of cell lines for
CC identifying polynucleotides and polypeptides whose expression levels
CC correlate with compound sensitivity or resistance of cells associated
CC with a disease state; and (3) identifying polynucleotides and
CC polypeptides that predict compound sensitivity or resistance of cells
CC associated with a disease state, comprising subjecting the plurality of
CC cell lines to one or more compounds, analysing the expression pattern of
CC a microarray of polynucleotides or polypeptides, and selecting
CC polynucleotides or polypeptides that predict the sensitivity or
CC resistance of cells associated with a disease state by using the
CC expression pattern of the microarray. The polynucleotides and
CC polypeptides have cytostatic activities, and can be used in gene therapy.
CC The polynucleotides and polypeptides are useful in predicting the
CC activity of compounds that interact with protein tyrosine kinases and/or
CC protein tyrosine kinase pathways. These may be used in determining drug
CC sensitivity in patients to allow the development of individualized
CC genetic profiles which aid in treating diseases and disorders (e.g.
CC cancer) based on patient response at a molecular level. The present
CC sequence is used in the exemplification of the present invention.
XX
SQ Sequence 21 BP; 2 A; 6 C; 4 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy        758 ATTTCCATGACCAAGAA 774
              | ||||| |||||||||
Db         17 AGTTCCAAGACCAAGAA 1
```

RESULT 4853
ADD24723/c
ID ADD24723 standard; DNA; 21 BP.
XX
AC ADD24723;
XX
DT 15-JAN-2004 (first entry)
XX
DE Human CYP2E1 mutant T7632A probe H210.
XX
KW diagnostic; pharmaceutical tolerance; side effect; drug; human;
KW allelic variability; polymorphism; phase I; phase II;
KW detoxification mechanism; PCR; primer; probe; NAT2; CYP2D6; CYP1A2;
KW CYP3A4; mEH; TPMT; MTHFR; paraoxonase; CYP2C9; CYP2C19; CYP2E1; DPD; ss.
XX
OS Homo sapiens.
XX
PN WO2003018837-A2.
XX
PD 06-MAR-2003.
XX
PF 22-AUG-2002; 2002WO-EP009386.
XX
PR 24-AUG-2001; 2001DE-01040651.
PR 30-APR-2002; 2002DE-01019373.
XX
PA (ADNA-) ADNAGEN AG.
XX
PI Waschuetza S, Schnakenberg E, Lustig M;
XX
DR WPI; 2003-290079/28.
XX
PT Diagnostic kit, useful for assessing a subject's tolerance of drugs,
PT comprises reagents for determining alleles of genes encoding
PT detoxification enzymes.
XX
PS Claim 6; Page 80; 156pp; German.
XX

CC This invention describes a novel diagnostic kit for determining tolerance
CC of pharmaceuticals in humans by determining allelic variability of at
CC least two polymorphisms of a human enzyme involved in phase I and/or II
CC of the detoxification mechanism in a blood, tissue or other human sample,
CC where tolerance is determined from presence or absence of alleles. The
CC kit comprises two pairs of oligonucleotide primers, in which each pair
CC amplifies, by PCR, part of a gene for a human detoxification mechanism-
CC associated enzyme. The kit may also contain two further pairs of
CC oligonucleotides, serving as probes for detection of amplified DNA
CC segments, especially where the probes are complementary to a single
CC strand of one allele of the target gene. The probes are labelled with
CC fluorophores (LC-Red640 or LC-Red705 for 5'-labelling or fluorescein for
CC 3'-labelling) which generate a different signal in the hybridized and non
CC -hybridized condition. The enzymes detected include NAT2, CYP2D6, CYP1A2,
CC CYP3A4, mEH, TPMT, MTHFR, paraoxonase, CYP2C9, CYP2C19, CYP2E1 or DPD.
CC The kit is used to determine an individual's tolerance of a particular
CC drug, to establish a suitable dose and/or to predict if a subject will
CC show side-effects to a drug. The kit provides minimally invasive, safe
CC and reliable determination of the metabolic capacity of phase I and/or II
CC enzymes at the molecular level. This sequence represents a probe used in
CC the kit of the invention.
XX
SQ Sequence 21 BP; 14 A; 1 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2172 TTTTTTTTTTTTTTAA 2188
              ||||||||  |||||||
Db         21 TTTTTTTTAATTTTTAA 5
```

RESULT 4854
ADE34494/c
ID ADE34494 standard; DNA; 21 BP.
XX
AC ADE34494;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human G-protein coupled receptor related primer #SEQ ID 114.
XX
KW Cytostatic; antiinflammatory; hepatotropic; nephrotropic; dermatological;
KW antiarthritic; antiasthmatic; antidiabetic; hypotensive; antiulcer;
KW antilipemic; antiarteriosclerotic; nootropic; neuroprotective; anorectic;
KW immunomodulator; uropathic; antiinfertility; G-protein coupled receptor;
KW GPCR; GPCR185; GPCR186; GPCR187; GPCR188; GPCR189; GPCR222; GPCR223;
KW hepatitis; nephritis; dermatitis; pancreatitis; rheumatoid arthritis;
KW osteoarthritis; atopic dermatitis; asthma; diabetes; hypertension;
KW inflammatory bowel disease; gastric ulcer; arteriosclerosis;
KW hyperlipemia; Alzheimer's disease; dementia; obesity; pulmonary fibrosis;
KW renal fibrosis; immune deficiency; infertility; urinary blockage; cancer;
KW PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003078632-A1.
XX
PD 25-SEP-2003.
XX
PF 14-MAR-2003; 2003WO-JP003050.
XX
PR 15-MAR-2002; 2002JP-00071567.
PR 14-MAY-2002; 2002JP-00138013.
PR 28-FEB-2003; 2003JP-00054663.
XX
PA (NISB) JAPAN TOBACCO INC.
XX
PI Watanabe H, Nozaki Y;
XX
DR WPI; 2003-722435/68.
XX

```
PT   G-protein coupled receptor proteins, genes encoding them and antibodies
PT   recognizing them for treatment and diagnosis of cancer, inflammatory and
PT   gastrointestinal disorders.
XX
PS   Example; SEQ ID NO 114; 274pp; Japanese.
XX
CC   The invention relates to G-protein coupled receptor proteins of human
CC   origin. These proteins include GPCR185, GPCR186, GPCR187, GPCR188,
CC   GPCR189, GPCR222 and GPCR223. Proteins of the invention are used in the
CC   treatment and prevention of diseases associated with inflammation,
CC   angiogenesis and tissue neogenesis, including hepatitis, nephritis,
CC   dermatitis, pancreatitis, rheumatoid arthritis, osteoarthritis, atopic
CC   dermatitis, asthma, diabetes, hypertension, inflammatory bowel disease,
CC   gastric ulcer, arteriosclerosis, hyperlipemia, Alzheimer's disease,
CC   dementia, obesity, pulmonary fibrosis, renal fibrosis, immune deficiency,
CC   infertility, urinary blockage and cancer (such as cancer of the brain,
CC   neck, tongue, lung, breast, pancreas, stomach, colon, duodenum, prostate,
CC   bladder, ovary, womb or rectum). Primers of the invention are devised and
CC   synthesised based on G-protein coupled receptor consensus sequences and
CC   used for 5'-RACE (rapid amplification of cDNA ends) and 3'-RACE
CC   amplification of human cDNA derived from adrenal and visual cortex RNA.
CC   Sequences given in ADE34534-ADE34533 represent human G-protein coupled
CC   receptor proteins, genes encoding them, and primers for the amplification
CC   of these sequences.
XX
SQ   Sequence 21 BP; 6 A; 4 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 21;
  Best Local Similarity   88.2%;  Pred. No. 4.5e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1472 GCTGATTCTAACAAAAC 1488
              ||||||||||  ||||
Db         18 GCTGATTCTAATCAAAC 2


RESULT 4855
AAT78996/c
ID   AAT78996 standard; DNA; 22 BP.
XX
AC   AAT78996;
XX
DT   13-JAN-1998  (first entry)
XX
DE   Human Huntington's disease gene intron 1 3' acceptor site.
XX
KW   Huntington's disease; animal model; transgenic animal; human; therapy;
KW   drug screening; Hdh gene; ss.
XX
OS   Homo sapiens.
XX
PN   CA2178022-A.
XX
PD   02-DEC-1996.
XX
PF   03-JUN-1996;   96CA-02178022.
XX
PR   01-JUN-1995;   95US-00457273.
XX
PA   (UYBR-) UNIV BRITISH COLUMBIA.
XX
PI   Hayden M,  Lin B,  Nasir J;
XX
DR   WPI; 1997-298677/28.
XX
PT   Mouse Huntington's Disease gene - useful for generating transgenic mice
PT   as a model of Huntington's Disease.
XX
PS   Disclosure; Page 60; 69pp; English.
XX
CC   This oligonucleotide comprises the 5' acceptor site of intron 1 of the
CC   human Huntington's disease (HD) gene. The splice site sequences for the
CC   first 5 exons of the mouse HD gene (see AAT78974) and the human HD gene
CC   were compared (see AAT78985-T79002). Targeted disruption of the murine HD
CC   gene, e.g. at exon 5, can be used to examine the function of the HD gene
CC   and its role in development. Transgenic mice can be used as models of HD
XX
SQ   Sequence 22 BP; 2 A; 3 C; 1 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 22;
  Best Local Similarity   88.2%;  Pred. No. 4.8e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||| |||||||| ||
Db         20 AAAAATAAAAAAAAGAA 4


RESULT 4856
AAC96115
ID   AAC96115 standard; DNA; 25 BP.
XX
AC   AAC96115;
XX
DT   26-FEB-2001  (first entry)
XX
DE   16s rRNA gene PCR primer #82.
XX
KW   DNA sequence analysis; sequencing; protein sequence; protein structure;
KW   gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW   human leukocyte antigen; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200065088-A2.
XX
PD   02-NOV-2000.
XX
PF   20-APR-2000; 2000WO-EP003636.
XX
PR   26-APR-1999;   99EP-00303215.
XX
PA   (AMSH ) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI   Ulfendahl P,  Wong K;
XX
DR   WPI; 2000-679677/66.
XX
PT   Identifying extendible primers for use in identification, or
PT   classification of a nucleic acid of an organism, allele or gene such as
PT   class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT   specific length.
XX
PS   Claim 14; Page 45; 66pp; English.
XX
CC   The present invention provides a method for identifying a set of
CC   extendible primers which can be used in the identification, typing and
CC   classification of genes. This can then be used to predict protein
CC   sequence and structure, in organ donation to match the organ with the
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 2 A; 4 C; 3 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 25;
  Best Local Similarity   88.2%;  Pred. No. 5.1e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTAACT 2190
              ||||||||||||| | |
Db          1 TTTTTTTTTTTTTCAGT 17


RESULT 4857
AAC96598
```

ID AAC96598 standard; DNA; 25 BP.
XX
AC AAC96598;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DRB345 gene PCR primer #69.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 54; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 5 A; 3 C; 2 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 25;
Best Local Similarity 88.2%; Pred. No. 5.1e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2174 TTTTTTTTTTTTTAACT 2190
||||||||||||| || |
Db 1 TTTTTTTTTTTTCAATT 17

RESULT 4858
AAC96156/c
ID AAC96156 standard; DNA; 25 BP.
XX
AC AAC96156;
XX
DT 26-FEB-2001 (first entry)
XX
DE 16s rRNA gene PCR primer #123.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 46; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 3 A; 3 C; 3 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.8; DB 1; Length 25;
Best Local Similarity 88.2%; Pred. No. 5.1e+03;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2781 AATTGAAAAAAAAAAAA 2797
|| | ||||||||||||
Db 17 AAGTTAAAAAAAAAAAA 1

RESULT 4859
AAC96394/c
ID AAC96394 standard; DNA; 25 BP.
XX
AC AAC96394;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DPB1 gene PCR primer #126.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 50; 66pp; English.

```
XX
CC   The present invention provides a method for identifying a set of
CC   extendible primers which can be used in the identification, typing and
CC   classification of genes. This can then be used to predict protein
CC   sequence and structure, in organ donation to match the organ with the
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 4 A; 3 C; 4 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 25;
  Best Local Similarity   88.2%;  Pred. No. 5.1e+03;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1974 CCTTGAAAAAAAGAAAA 1990
              |||| ||||||| ||||
Db         17 CCTTCAAAAAAAAAAAA 1


RESULT 4860
AAC96041/c
ID   AAC96041 standard; DNA; 25 BP.
XX
AC   AAC96041;
XX
DT   26-FEB-2001  (first entry)
XX
DE   16s rRNA gene PCR primer #8.
XX
KW   DNA sequence analysis; sequencing; protein sequence; protein structure;
KW   gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW   human leukocyte antigen; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200065088-A2.
XX
PD   02-NOV-2000.
XX
PF   20-APR-2000; 2000WO-EP003636.
XX
PR   26-APR-1999;   99EP-00303215.
XX
PA   (AMSH ) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI   Ulfendahl P,  Wong K;
XX
DR   WPI; 2000-679677/66.
XX
PT   Identifying extendible primers for use in identification, or
PT   classification of a nucleic acid of an organism, allele or gene such as
PT   class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT   specific length.
XX
PS   Claim 14; Page 44; 66pp; English.
XX
CC   The present invention provides a method for identifying a set of
CC   extendible primers which can be used in the identification, typing and
CC   classification of genes. This can then be used to predict protein
CC   sequence and structure, in organ donation to match the organ with the
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 2 A; 6 C; 1 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.8;  DB 1;  Length 25;
  Best Local Similarity   72.0%;  Pred. No. 5.1e+03;
  Matches   18;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAAAAAAA 2803
              | ||| |     ||||||||||||||
Db         25 ACAATGGGGGGTAAAAAAAAAAAAA 1


RESULT 4861
AAD41903/c
ID   AAD41903 standard; RNA; 28 BP.
XX
AC   AAD41903;
XX
DT   30-OCT-2002  (first entry)
XX
DE   ON-41 oligonucleotide used in the exemplification of the invention.
XX
KW   Antisense therapy; infection; cardiovascular disorder; immune reaction;
KW   gene therapy; virucide; cytostatic; antibacterial; antiinflammatory;
KW   cancer; cardiant; ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                    given as N in the sequence shown as SEQ ID NO: 50 in the
FT                    sequence listing"
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                    N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                    listing"
FT   modified_base    3
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                    given as N in the sequence shown as SEQ ID NO: 50 in the
FT                    sequence listing"
FT   modified_base    4
FT                    /*tag=  d
FT                    /mod_base= OTHER
FT                    /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                    N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                    listing"
FT   modified_base    5. .10
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                    given as N in the sequence shown as SEQ ID NO: 50 in the
FT                    sequence listing"
FT   modified_base    11
FT                    /*tag=  f
FT                    /mod_base= OTHER
FT                    /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                    N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                    listing"
FT   modified_base    12. .13
FT                    /*tag=  g
FT                    /mod_base= OTHER
FT                    /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                    given as N in the sequence shown as SEQ ID NO: 50 in the
FT                    sequence listing"
FT   modified_base    14
FT                    /*tag=  h
FT                    /mod_base= OTHER
FT                    /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                    N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                    listing"
FT   modified_base    15
FT                    /*tag=  i
FT                    /mod_base= OTHER
FT                    /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                    given as N in the sequence shown as SEQ ID NO: 50 in the
```

```
FT                      sequence listing"
FT   modified_base      16
FT                      /*tag=  j
FT                      /mod_base= OTHER
FT                      /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                      N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                      listing"
FT   modified_base      17. .19
FT                      /*tag=  k
FT                      /mod_base= OTHER
FT                      /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                      given as N in the sequence shown as SEQ ID NO: 50 in the
FT                      sequence listing"
FT   modified_base      20
FT                      /*tag=  l
FT                      /mod_base= OTHER
FT                      /note= "5-methyl-2'-deoxycytidine; This base is given as
FT                      N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                      listing"
FT   misc_feature       21
FT                      /*tag=  m
FT                      /note= "Switchback linker synthon; This base is given as
FT                      N in the sequence shown as SEQ ID NO: 50 in the sequence
FT                      listing"
FT   modified_base      22. .28
FT                      /*tag=  n
FT                      /mod_base= OTHER
FT                      /note= "5-(1-propynyl)-2'-deoxyuridine; This base is
FT                      given as N in the sequence shown as SEQ ID NO: 50 in the
FT                      sequence listing"
XX
PN   US6380368-B1.
XX
PD   30-APR-2002.
XX
PF   12-FEB-1996;   96US-00599738.
XX
PR   26-NOV-1991;   91US-00799824.
PR   25-AUG-1992;   92US-00935444.
PR   23-OCT-1992;   92US-00965941.
PR   25-NOV-1992;   92US-00976103.
PR   14-NOV-1994;   94US-00338352.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Froehler B,  Wagner R,  Mattencci M,  Jones RJ,  Gutierrez AJ;
PI   Pudlo J;
XX
DR   WPI; 2002-535437/57.
XX
PT   New oligomers useful for binding to DNA duplex target sequence and for
PT   treating e.g. diseases caused by viruses and inflammatory conditions
PT   comprise at least three 3'-5' linked nucleosides.
XX
PS   Example 19; Col 55-56; 106pp; English.
XX
CC   The present invention relates to novel oligomers which have enhanced
CC   ability with respect to forming duplexes or triplexes. The oligomers
CC   comprise at least three 3'-5' linked nucleosides or their salts. At least
CC   one internucleoside linkage is not a phosphodiester linkage and at least
CC   one nucleoside comprises a base. Sequences of the invention are useful
CC   for binding to a DNA duplex target sequence via either CT or GT triplex
CC   helix binding motif and in antisense therapies. They are also used for
CC   treating diseases caused by viruses and for diagnostic applications to
CC   detect viral infections, bacterial infections and diseases such as
CC   cancers. The oligomers are also used as primers, in the treatment of
CC   pathological conditions associated with inflammatory conditions,
CC   cardiovascular disorders, immune reactions and bacterial infections and
CC   for modulating target gene expression. They are also useful in gene
CC   therapy. The present sequence is an oligonucleotide used in the
CC   exemplification of the invention
XX
SQ   Sequence 28 BP; 0 A; 6 C; 0 G; 0 T; 21 U; 1 Other;
```

```
  Query Match             0.5%;  Score 13.8;  DB 1;  Length 28;
  Best Local Similarity   69.2%;  Pred. No. 5.1e+03;
  Matches   18;  Conservative    0;  Mismatches    8;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAAAAAAAA 2804
              | ||  |||| | || ||||||| | |
Db         26 AAAAANGAAAGAGAAGAAAAAAGAGA 1
```

```
RESULT 4862
ABN87920/c
ID   ABN87920 standard; DNA; 15 BP.
XX
AC   ABN87920;
XX
DT   12-AUG-2002  (first entry)
XX
DE   Human GSR allele specific oligonucleotide primer SEQ ID NO:39.
XX
KW   Human; glutathione reductase; GSR; enzyme; haemolytic anaemia; SNP;
KW   gene therapy; antianaemic; polymorphic; single nucleotide polymorphism;
KW   primer; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    14
FT                   /*tag=  a
FT                   /note= "polymorphic base"
XX
PN   WO200242320-A2.
XX
PD   30-MAY-2002.
XX
PF   13-NOV-2001; 2001WO-US046473.
XX
PR   10-NOV-2000; 2000US-0247202P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Bieglecki KM,  Sanchis A,  Sausker EA,  Sun X;
XX
DR   WPI; 2002-471719/50.
XX
PT   New genetic variants of Glutathione reductase isogenes, useful for
PT   improving efficiency and reliability in drug development for treating
PT   hemolytic anemia.
XX
PS   Claim 14; Page 14; 137pp; English.
XX
CC   The present invention describes genetic variants of the human glutathione
CC   reductase (GSR) gene (I). (I) has antianaemic activity and can be used in
CC   gene therapy. (I) can be used in screening for drugs targeting (I) that
CC   are useful for treating haemolytic anaemia. Methods from the present
CC   invention can be used: for improving the efficiency and reliability of
CC   several steps in the discovery and development of drugs for treating
CC   diseases associated with GSR activity; for haplotyping, which is also
CC   used by the pharmaceutical research scientist to validate GSR as a
CC   candidate target for treating a specific condition or disease predicted
CC   to be associated with GSR activity, e.g. haemolytic anaemia, and in the
CC   design of clinical trials for treating a specific condition of disease
CC   associated with GSR activity; and for screening compounds targeting GSR.
CC   (I) is useful in studying the expression and function of GSR, and in
CC   expressing GSR protein for use in screening for candidate drugs to treat
CC   diseases related to GSR activity. (I) is also useful in studying the
CC   effect of the variation on the biological activity of GSR as well as on
CC   the binding affinity of candidate drugs targeting GSR for the treatment
CC   of haemolytic anaemia. The present sequence represents an allele specific
CC   oligonucleotide (ASO) primer for the human GSR gene, which is given in
CC   the exemplification of the present invention. N.B. The polymorphic base
CC   (showing a single nucleotide polymorphism) in the ASO primer is shown
CC   using an IUPAC ambiguity code (as given in the present invention)
```

```
XX
SQ   Sequence 15 BP; 1 A; 0 C; 0 G; 13 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 2.7e+03;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              :||||||||||||||
Db         14 WAAAAAAAAAAAAA 1


RESULT 4863
ABL01248
ID   ABL01248 standard; DNA; 15 BP.
XX
AC   ABL01248;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human MMP3 gene polymorphism detection ASO primer SEQ ID NO:27.
XX
KW   Human; matrix metalloproteinase 3; MMP3; chromosome 11q22.3; SNP;
KW   haplotype; polymorphism; polymorphic; single nucleotide polymorphism;
KW   probe; primer; detection; genotyping; vulnerary; cytostatic; cancer;
KW   antiarteriosclerotic; gene therapy; coronary atherosclerosis;
KW   wound healing; ss.
XX
OS   Homo sapiens.
XX
PN   WO200179238-A2.
XX
PD   25-OCT-2001.
XX
PF   17-APR-2001; 2001WO-US012452.
XX
PR   17-APR-2000; 2000US-0197911P.
PR   13-JUL-2000; 2000US-0218092P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Bentivegna SC,  Chew A,  Choi JY,  Koshy B,  Stephens JC;
XX
DR   WPI; 2002-075067/10.
XX
PT   Genotyping human matrix metalloproteinase 3 gene of an individual for
PT   determining the haplotype of the individual, comprises determining the
PT   identity of a nucleotide pair at specific polymorphic sites for two
PT   copies of the gene.
XX
PS   Claim 15; Page 14; 83pp; English.
XX
CC   The present invention describes a method for genotyping a human matrix
CC   metalloproteinase 3 (MMP3) gene of an individual. MMP3 has vulnerary,
CC   cytostatic and antiarteriosclerotic activity, and can be used in gene
CC   therapy. The method can be used: for improving the efficacy and
CC   reliability of several steps in the discovery and development of drugs
CC   for treating diseases associated with MMP3 activity, e.g., wound healing,
CC   cancer and coronary atherosclerosis; to validate MMP3 as a candidate
CC   agent for treating a specific condition or disease predicted to be
CC   associated with MMP3 activity; and in the design of clinical trials of
CC   candidate drugs for treating a specific condition or disease predicted to
CC   be associated with MMP3 activity. Polymorphic variants of a reference
CC   sequence for MMP3 (see ABL01223) are useful in studying the expression
CC   and function of MMP3, and in expressing MMP3 protein for use in screening
CC   for candidate drugs to treat diseases related to MMP3 activity. ABL01225
CC   to ABL01246 and ABL01247 to ABL01290 represent allele-specific
CC   oligonucleotide (ASO) probes and primers used in the detection of
CC   polymorphisms in the human MMP3 gene. ABL01291 to ABL01334 represent
CC   preferred primers used in the detection of polymorphisms in the human
CC   MMP3 gene
XX
SQ   Sequence 15 BP; 7 A; 0 C; 1 G; 6 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 2.7e+03;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2358 TATTTTAAGAAACA 2371
              ||||||||||||:|
Db          2 TATTTTAAGAAASA 15


RESULT 4864
ABK32799
ID   ABK32799 standard; DNA; 15 BP.
XX
AC   ABK32799;
XX
DT   23-APR-2002  (first entry)
XX
DE   Human APPBP1 gene, allele-specific oligonucleotide #29.
XX
KW   Human; amyloid beta precursor protein binding protein 1; APPBP1; probe;
KW   Alzheimer's disease; transgenic animal; platelet aggregation;
KW   single nucleotide polymorphism; SNP; allele-specific oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
PN   WO200202820-A1.
XX
PD   10-JAN-2002.
XX
PF   02-JUL-2001; 2001WO-US020951.
XX
PR   30-JUN-2000; 2000US-0215511P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Anastasio AE,  Chew A,  Choi JY,  Kazemi A,  Koshy B,  Sausker EA;
PI   Stephens CJ;
XX
DR   WPI; 2002-164539/21.
XX
PT   Amyloid beta precursor protein binding protein 159 kD (APPBP1) gene
PT   polymorphic variants, useful e.g. in studying the expression and function
PT   of APPBP1 and screening candidate drugs for treating Alzheimer's disease.
XX
PS   Claim 17; Page 13; 104pp; English.
XX
CC   The invention relates to an isolated polypeptide comprising a sequence
CC   which is a polymorphic variant of a reference sequence for the amyloid
CC   beta precursor protein binding protein 1, 59kD (APPBP1) protein or its
CC   fragment. The polymorphic variants are useful in studying the expression
CC   and function of APPBP1, in expressing APPBP1 protein for use in screening
CC   for candidate drugs to treat diseases related to APPBP1 activity, in
CC   studying the effect of the variation on the biological activity of
CC   APPBP1, and the binding affinity of candidate drugs targeting APPBP1 for
CC   the treatment of disorders such as Alzheimer's disease. The haplotyping
CC   methods are useful in validating APPBP1 as a candidate target for
CC   treating a specific condition or disease predicted to be associated with
CC   APPBP1 activity, or in the design of clinical trials of candidate drugs
CC   for treating a specific condition or disease associated with APPBP1
CC   activity. The transgenic animals are useful for studying expression of
CC   the APPBP1 isogenes in vivo, for in vivo screening and testing of drugs
CC   targeted against APPBP1 protein, and for testing the efficacy of
CC   therapeutic agents and compounds for disorders related to platelet
CC   aggregation in a biological system. ABK32771-ABK32327 represent human
CC   APPBP1 gene allele-specific oligonucleotides used in the method of the
CC   invention
XX
SQ   Sequence 15 BP; 13 A; 1 C; 0 G; 0 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 2.7e+03;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy       2786 AAAAAAAAAAAAAA 2799
                ||||||||||||:|
Db          2 AAAAAAAAAAAAARA 15
```

RESULT 4865
ABK32799/c
ID ABK32799 standard; DNA; 15 BP.
XX
AC ABK32799;
XX
DT 23-APR-2002 (first entry)
XX
DE Human APPBP1 gene, allele-specific oligonucleotide #29.
XX
KW Human; amyloid beta precursor protein binding protein 1; APPBP1; probe;
KW Alzheimer's disease; transgenic animal; platelet aggregation;
KW single nucleotide polymorphism; SNP; allele-specific oligonucleotide; ss.
XX
OS Homo sapiens.
XX
PN WO200202820-A1.
XX
PD 10-JAN-2002.
XX
PF 02-JUL-2001; 2001WO-US020951.
XX
PR 30-JUN-2000; 2000US-0215511P.
XX
PA (GENA-) GENAISSANCE PHARM INC.
XX
PI Anastasio AE, Chew A, Choi JY, Kazemi A, Koshy B, Sausker EA;
PI Stephens CJ;
XX
DR WPI; 2002-164539/21.
XX
PT Amyloid beta precursor protein binding protein 159 kD (APPBP1) gene
PT polymorphic variants, useful e.g. in studying the expression and function
PT of APPBP1 and screening candidate drugs for treating Alzheimer's disease.
XX
PS Claim 17; Page 13; 104pp; English.
XX
CC The invention relates to an isolated polypeptide comprising a sequence
CC which is a polymorphic variant of a reference sequence for the amyloid
CC beta precursor protein binding protein 1, 59kD (APPBP1) protein or its
CC fragment. The polymorphic variants are useful in studying the expression
CC and function of APPBP1, in expressing APPBP1 protein for use in screening
CC for candidate drugs to treat diseases related to APPBP1 activity, in
CC studying the effect of the variation on the biological activity of
CC APPBP1, and the binding affinity of candidate drugs targeting APPBP1 for
CC the treatment of disorders such as Alzheimer's disease. The haplotyping
CC methods are useful in validating APPBP1 as a candidate target for
CC treating a specific condition or disease predicted to be associated with
CC APPBP1 activity, or in the design of clinical trials of candidate drugs
CC for treating a specific condition or disease associated with APPBP1
CC activity. The transgenic animals are useful for studying expression of
CC the APPBP1 isogenes in vivo, for in vivo screening and testing of drugs
CC targeted against APPBP1 protein, and for testing the efficacy of
CC therapeutic agents and compounds for disorders related to platelet
CC aggregation in a biological system. ABK32771-ABK32327 represent human
CC APPBP1 gene allele-specific oligonucleotides used in the method of the
CC invention
XX
SQ Sequence 15 BP; 13 A; 1 C; 0 G; 0 T; 0 U; 1 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 2.7e+03;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTT 2179
              |:||||||||||||
Db         15 TYTTTTTTTTTTT 2
```

RESULT 4866
AAC82914/c
ID AAC82914 standard; DNA; 20 BP.
XX
AC AAC82914;
XX
DT 21-MAR-2001 (first entry)
XX
DE Human beta-actin derived oligonucleotide #7.
XX
KW Recognition system; screening; identification; pharmaceutical; toxin;
KW plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW herbicide; fungicide; pesticide; beta-actin; human; ss.
XX
OS Homo sapiens.
XX
PN DE19923966-A1.
XX
PD 30-NOV-2000.
XX
PF 25-MAY-1999; 99DE-01023966.
XX
PR 25-MAY-1999; 99DE-01023966.
XX
PA (AVET) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI Boekenkamp D, Hoppe H, Burgstaller P;
XX
DR WPI; 2001-050938/07.
XX
PT Recognition system, e.g. for identifying nucleic acids, comprises at
PT least one recognition unit comprising a region with a defined structure
PT adjacent to a region with a randomized structure.
XX
PS Example; Fig 1; 8pp; German.
XX
CC This invention describes a novel recognition system comprising at least 1
CC recognition unit bound to a support, each recognition unit comprising a
CC region A with a defined structure adjacent to a region B with a
CC randomized structure. The recognition system is useful for screening,
CC identifying, or characterizing at least 1 component of a sample,
CC especially nucleic acids and/or proteins, and for screening for and/or
CC identifying cellular or synthetic binding partners, preferably proteins,
CC peptides, nucleic acids, chemical agents, preferably organic compounds,
CC pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC teratogens, herbicides, fungicides or pesticides
XX
SQ Sequence 20 BP; 2 A; 1 C; 2 G; 15 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAA 2798
              | |  | ||||||||||||||
Db         20 ACAGCTTAAAAAAAAAAAAA 1
```

RESULT 4867
AAC82912/c
ID AAC82912 standard; DNA; 20 BP.
XX
AC AAC82912;
XX
DT 21-MAR-2001 (first entry)
XX
DE Human beta-actin derived oligonucleotide #5.
XX
KW Recognition system; screening; identification; pharmaceutical; toxin;
KW plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW herbicide; fungicide; pesticide; beta-actin; human; ss.

XX
OS Homo sapiens.
XX
PN DE19923966-A1.
XX
PD 30-NOV-2000.
XX
PF 25-MAY-1999; 99DE-01023966.
XX
PR 25-MAY-1999; 99DE-01023966.
XX
PA (AVET) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI Boekenkamp D, Hoppe H, Burgstaller P;
XX
DR WPI; 2001-050938/07.
XX
PT Recognition system, e.g. for identifying nucleic acids, comprises at
PT least one recognition unit comprising a region with a defined structure
PT adjacent to a region with a randomized structure.
XX
PS Example; Fig 1; 8pp; German.
XX
CC This invention describes a novel recognition system comprising at least 1
CC recognition unit bound to a support, each recognition unit comprising a
CC region A with a defined structure adjacent to a region B with a
CC randomized structure. The recognition system is useful for screening,
CC identifying, or characterizing at least 1 component of a sample,
CC especially nucleic acids and/or proteins, and for screening for and/or
CC identifying cellular or synthetic binding partners, preferably proteins,
CC peptides, nucleic acids, chemical agents, preferably organic compounds,
CC pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC teratogens, herbicides, fungicides or pesticides
XX
SQ Sequence 20 BP; 3 A; 0 C; 2 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2779 AGAATTGAAAAAAAAAAAAA 2798
              | |  | ||||||||||||||
Db         20 ACATCTTAAAAAAAAAAAAA 1
```

RESULT 4868
ABZ87682
ID ABZ87682 standard; DNA; 20 BP.
XX
AC ABZ87682;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 2924; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 1 C; 3 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2174 TTTTTTTTTTTTTAACTTTG 2193
              |||||||||||||| |  | |
Db          1 TTTTTTTTTTTTTCAGGTAG 20
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RESULT 4869
ABZ89513/c
ID ABZ89513 standard; DNA; 20 BP.
XX
AC ABZ89513;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.

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XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4755; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 1 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAAAA 2802
              | | |||| ||||| |||||
Db         20 TAGTAAAACAAAAATAAAAA 1


RESULT 4870
ABZ85671/c
ID   ABZ85671 standard; DNA; 20 BP.
XX
AC   ABZ85671;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
```

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XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 913; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAAAA 2802
              | | ||||||| | ||||||
Db         20 TCGTAAAAAAATAGAAAAAA 1


RESULT 4871
AAN71012/c
ID   AAN71012 standard; DNA; 20 BP.
XX
AC   AAN71012;
XX
DT   25-MAR-2003  (revised)
DT   29-APR-1991  (first entry)
XX
DE   Probe to 35kd pulmonary surfactant protein.
XX
KW   Hyaline membrane disease; respiratiory distress syndrome; RDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO8702037-A.
XX
PD   09-APR-1987.
XX
PF   26-SEP-1986;   86WO-US002034.
XX
PR   26-SEP-1985;   85US-00781130.
PR   15-AUG-1986;   86US-00897183.
PR   24-SEP-1987;   87US-00100372.
XX
PA   (GEMY ) GENETICS INST INC.
PA   (BRIG-) BRIGHAM & WOMEN'S HOSP.
XX
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```
PI   Taeusch H,  Jacobs KA,  Steinbrink DR,  Floros J,  Davis DS;
XX
DR   WPI; 1987-108682/15.
XX
PT   Pulmonary surfactant proteins - used for treating Hyaline Membrane
PT   Disease or Respiratory Distress Syndrome.
XX
PS   Disclosure; Page 26; 50pp; English.
XX
CC   Probe was used to isolate the 35kd PSP encoding sequence from pulmonary
CC   material of an alveolar proteinosis patient. PSP may be used in treatment
CC   of Hyaline Membrane Disease and Respiratory Distress Syndrome (RDS) in
CC   both premature infants and adults eg. cardio-pulmonary operations. The
CC   protein products may also be used to raise diagnostic antibodies.
CC   (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to
CC   correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 20 BP; 0 A; 4 C; 3 G; 9 T; 0 U; 4 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   68.4%;  Pred. No. 4.5e+03;
  Matches   13;  Conservative    3;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1486 AACCCTGGAGAAAATGGAG 1504
              ||:|| | ||||||:| :|
Db         20 AAYCCNGAAGAAAAYGARG 2


RESULT 4872
AAQ05898
ID   AAQ05898 standard; DNA; 20 BP.
XX
AC   AAQ05898;
XX
DT   17-DEC-2001  (revised)
DT   16-JAN-1991  (first entry)
XX
DE   Probe AD03 to detect Listeria monocytogenes.
XX
KW   Listeria monocytogenes; probe AD03; dairy products; milk; cheese; ss.
XX
OS   Synthetic.
XX
PN   USN7411965-N.
XX
PD   21-AUG-1990.
XX
PF   25-SEP-1989;   89US-00411965.
XX
PR   25-SEP-1989;   89US-00411965.
XX
PA   (USSH ) US FOOD & DRUG ADM.
XX
PI   Datta A;
XX
DR   WPI; 1990-290094/38.
XX
PT   Synthetic Listeria monocytogenes oligo-nucleotide probes - used for
PT   detection and enumeration of organism in dairy prods. e.g. milk and
PT   cheese.
XX
PS   Disclosure; Page 18; 23pp; English.
XX
CC   This probe, from construct M13-mp19, is complementary to bases 167-186 of
CC   the sequence represented in AAQ05931, which is the presumptive hemolysin
CC   gene of L. monocytogenes. The probe is used for detection and enumeration
CC   of L.monocytogenes, esp. for detection in dairy prods. such as milk and
CC   cheese by colony hybridisation assays. See also AAQ05898-900 and AAQ05930
CC   -31. (Note: Revised entry submitted to correct the patent number format
CC   of US Government-owned NTIS applications to prevent clashes with ongoing
CC   US granted patent numbers. For further information please visit the
CC   Derwent web site at www.derwent.com/dwpi/updates/ntis_us.html.)
XX
SQ   Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        708 ACGACCAGCACCTGTTGCTG 727
              || | | ||||||||||| |
Db          1 ACAAGCTGCACCTGTTGCAG 20


RESULT 4873
AAQ35728/c
ID   AAQ35728 standard; DNA; 20 BP.
XX
AC   AAQ35728;
XX
DT   25-MAR-2003  (revised)
DT   24-FEB-1993  (first entry)
XX
DE   EIV 5' fragment primer A2F5P.
XX
KW   Expression cassette; equine influenza virus; EIV; hemagglutinin; HA;
KW   A2/Fontainebleau/79; NYVAC; ALVAC; recombinant vector; canarypox;
KW   polymerase chain reaction; vaccinia virus; H6 promoter; amplify;
KW   Copenhagen vaccine; virulence factor; deletion loci; recipient loci; PCR;
KW   ss.
XX
OS   Synthetic.
XX
PN   WO9215672-A1.
XX
PD   17-SEP-1992.
XX
PF   09-MAR-1992;   92WO-US001906.
XX
PR   07-MAR-1991;   91US-00666056.
PR   11-JUN-1991;   91US-00713967.
PR   06-MAR-1992;   92US-00847951.
XX
PA   (VIRO-) VIROGENETICS CORP.
XX
PI   Paoletti E,  Perkus ME,  Taylor J,  Tartaglia J,  Norton EK;
PI   Riviere M,  De Taisne C,  Limbach KJ,  Johnson GP,  Pincus SE,  Cox WI;
PI   Francis J,  Gettig RR;
XX
DR   WPI; 1992-331718/40.
XX
PT   Vaccine comprises recombinant, attenuated pox-virus - use for vaccinating
PT   against viral infections such as rabies, hepatitis B, HIV, HSV, EBV, CMV,
PT   mumps etc.
XX
PS   Disclosure; Page 222; 456pp; English.
XX
CC   The sequences given in AAQ35724-32 were used to generate an expression
CC   cassette for the insertion of the equine influenza virus (EIV)
CC   hemagglutinin (HA) (A2/Fontainebleau/79) into NYVAC and ALVAC recombinant
CC   vectors. The HA gene sequence was isolated from an EIV cDNA library and
CC   was amplified by polymerase chain reaction. The HA gene sequence was
CC   fragmented and then reconstituted aligned with the vaccinia virus H6
CC   promoter. NYVAC is derived from a Copenhagen vaccine strain of vaccinia
CC   virus and ALVAC is derived from a canarypox virus which has been modified
CC   by deletion of non-essential regions of the genome encoding known or
CC   potential virulence factors. The deletion loci of both vectors were
CC   engineered as recipient loci for the insertion of foreign genes. See also
CC   AAQ35501-864. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 7 A; 3 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy       2509 CATCATAAGGTTTTATTCAT 2528
              ||  |||||||| | |||||
Db         20 CAAAATAAGGTTGTCTTCAT 1
```

RESULT 4874
AAQ41529
ID AAQ41529 standard; DNA; 20 BP.
XX
AC AAQ41529;
XX
DT 25-MAR-2003 (revised)
DT 10-AUG-1993 (first entry)
XX
DE Antisense oligomer targetting EBER-2 internal sequence.
XX
KW Epstein Barr virus; EBV; hybridisation; antisense modulator; replication;
KW nasopharyngeal carcinoma; Burkitt lymphoma; Sjogren's; syndrome;
KW infectious mononucleosis; latent; active; infection; ss.
XX
OS Synthetic.
XX
PN WO9307882-A1.
XX
PD 29-APR-1993.
XX
PF 23-OCT-1992; 92WO-US008989.
XX
PR 25-OCT-1991; 91US-00783605.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Anderson KP, Ecker DJ;
XX
DR WPI; 1993-152174/18.
XX
PT Oligo:nucleotide(s) hybridising with RNA of Epstein Barr virus - for
PT treating active, latent and chronic EBV infections and associated
PT diseases e.g. nasopharyngeal carcinoma, Burkitt's lymphoma.
XX
PS Claim 1; Page 20; 45pp; English.
XX
CC The synthetic peptide is an antisense modulator of Epstein Barr virus and
CC pref. contains at least one phosphorothioate linking gp. and
CC modifications in the 2' position. These modifications improve penetration
CC into regions of the cell that contain nucleic acid and also resistance to
CC degradation by nucleases. The oligonucleotide targets an EBER-2 internal
CC sequence and hybridises, thus inhibiting replication of EBV. The oligomer
CC may be used for treating or preventing EBV-associated diseases, e.g.
CC nasopharyngeal carcinoma, Burkitt's lymphoma, Sjogren's syndrome,
CC infectious mononucleosis etc. The oligomer is effective against both
CC latent and active EBV infection. See also AAQ40575-9 and AAQ41517-44.
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 20 BP; 3 A; 6 C; 6 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1043 AGGCGGAAAGCCGCTCATGT 1062
              |||||| ||||| ||| | |
Db          1 AGGCGGGAAGCCTCTCTTCT 20
```

RESULT 4875
AAQ46060
ID AAQ46060 standard; DNA; 20 BP.
XX
AC AAQ46060;
XX
DT 25-MAR-2003 (revised)
DT 08-FEB-1994 (first entry)
XX
DE Sequence of PCR primer AD03 for the amplification of iap (beta-
DE haemolysin) virulence factor.
XX
KW Virulence factor; Listeria detection; food poisoning; iap; PCR;
KW beta-haemolysin; primer; ss.
XX
OS Synthetic.
XX
PN CH682156-A5.
XX
PD 30-JUL-1993.
XX
PF 28-JUN-1990; 90CH-00002190.
XX
PR 28-JUN-1990; 90CH-00002190.
XX
PA (CAND/) CANDRIAN U.
PA (FURR/) FURRER B.
PA (HOEF/) HOEFELEIN C.
PA (LUET/) LUETHY J.
XX
PI Candrian U, Furrer B, Hoefelein C, Luethy J;
XX
DR WPI; 1993-265174/34.
XX
PT Listeria monocytogenes detection by enzymatic nucleic acid amplification
PT - using oligo-nucleotide(s) derived from alpha-haemolysin and/or beta-
PT haemo-lysin virulence factors in polymerase chain reactions.
XX
PS Claim 3; Page 2; 2pp; German.
XX
CC Oligos L01, L02, L03 and L04 are used for the amplification of hly (alpha
CC -haemolysin) virulence factor; and oligos AD07, AD08 and AD09 are used
CC for the amplification of iap (beta-haemolysin) virulence factor. They are
CC used in a detection method for Listeria monocytogenes in food samples
CC which is faster and more sensitive than the classical bacteriological
CC methods. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        708 ACGACCAGCACCTGTTGCTG 727
              || | | ||||||||||| |
Db          1 ACAAGCTGCACCTGTTGCAG 20
```

RESULT 4876
AAQ34754/c
ID AAQ34754 standard; DNA; 20 BP.
XX
AC AAQ34754;
XX
DT 25-MAR-2003 (revised)
DT 03-JUN-1993 (first entry)
XX
DE Blocker oligonucleotide CFTR(C).
XX
KW Cystic Fibrosis transregulator; assay; ss.
XX
OS Synthetic.
XX
PN WO9301313-A1.
XX
PD 21-JAN-1993.
XX
PF 06-JUL-1992; 92WO-GB001229.
XX
PR 05-JUL-1991; 91GB-00014525.
XX

```
PA   (CYTO-) CYTOCELL LTD.
XX
PI   Cardy DLN,  Delnatte SYJ;
XX
DR   WPI; 1993-045514/05.
XX
PT   Homogeneous assay for nucleic acid sequences - obtd. by modulating enzyme
PT   activity, by hybridisation of derived nucleic acid probes.
XX
PS   Example 1; Page 22; 51pp; English.
XX
CC   The blocker oligonucleotide CFTR(C) comprises a sequence complementary to
CC   a site on the CFTR gene adjacent to that of the activator oligonucleotide
CC   probes CFRT(A) and CFA508(A). The nucleotide was synthesised with a 5'
CC   bromodeoxyuridine nucleoside and may be used in an assay for the
CC   detection of Cystic Fibrosis transregulator (CFTR) related genes in human
CC   DNA. See also AAQ34750-62. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 9 A; 2 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1994 TGTATCTAGCTTCTTCAGAG 2013
              ||||||||  ||| ||| ||
Db         20 TGTATCTATATTCATCATAG 1


RESULT 4877
AAQ70719/c
ID   AAQ70719 standard; DNA; 20 BP.
XX
AC   AAQ70719;
XX
DT   25-MAR-2003  (revised)
DT   22-FEB-1995  (first entry)
XX
DE   C-myc gene antisense oligo.
XX
KW   C-myc; oncogene; smooth muscle; antisense; phosphorothioate;
KW   oligonucleotide; restenosis; ss.
XX
OS   Synthetic.
XX
PN   WO9415646-A1.
XX
PD   21-JUL-1994.
XX
PF   07-JAN-1994;   94WO-US000265.
XX
PR   07-JAN-1993;   93US-00004799.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1994-248909/30.
XX
PT   Use of antisense oligonucleotides specific for c-myc - for modulating the
PT   proliferation of smooth muscle cells, partic. for treating or preventing
PT   restenosis.
XX
PS   Example 12; Page 29; 52pp; English.
XX
CC   An oligonucleotide (AAQ70710) antisense to a segment of human c-myc mRNA
CC   beginning with a translational initiation codon reduced neointima
CC   formation in the coronary vasculature in a pig restenosis model. Activity
CC   was compared to that of antisense oligos (AAQ70715-21) that targeted
CC   other regions of c-myc mRNA. The oligo given in AAQ70719 targeted
CC   nucleotides 1264-1283 of the 5' non-coding region, and provided a similar
CC   degree of growth inhibition as the AAQ70710 oligo. (Updated on 25-MAR-
CC   2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTCCACGA 672
              |||  ||||| |||||| ||
Db         20 GAGCCCCTGGTGCTCCATGA 1


RESULT 4878
AAQ71313
ID   AAQ71313 standard; DNA; 20 BP.
XX
AC   AAQ71313;
XX
DT   25-MAR-2003  (revised)
DT   25-APR-1995  (first entry)
XX
DE   Primer for the detection of recombinant viruses.
XX
KW   Recombinant viruses; retro-viruses; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9419491-A1.
XX
PD   01-SEP-1994.
XX
PF   16-FEB-1994;   94WO-US001643.
XX
PR   17-FEB-1993;   93US-00018118.
XX
PA   (GENE-) GENETIC THERAPY INC.
XX
PI   Otto RE,  Allen CL;
XX
DR   WPI; 1994-294351/36.
XX
PT   Detecting recombination of viral nucleic acid sequences - by amplifying
PT   recombined product with specific primers, esp. for detecting replication
PT   competent retro-viruses produced by gene therapy.
XX
PS   Example 1; Page 35; 51pp; English.
XX
CC   AAQ71313 was used in combination with AAQ71312 to prime the PCR
CC   amplification of replication competent, recombined viruses (esp. retro-
CC   or adeno-viruses). This enabled the viruses to be detected in very small
CC   concentrations (eg. 1 in 100 000 cells), in body fluids and tissue
CC   samples (useful in gene therapy), and in viral vector preparations, cell
CC   lines and transduced target cells. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        785 CTCCCCTGTCAGAAGGAGCT 804
              | || |||||||||  || ||
Db          1 CCCCACTGTCAGAAAGAACT 20


RESULT 4879
AAQ97446/c
ID   AAQ97446 standard; DNA; 20 BP.
XX
AC   AAQ97446;
XX
DT   20-MAR-1996  (first entry)
```

```
XX
DE   Phage lambda J gene (18872-18891) PCR primer CF1018.
XX
KW   PCR amplification; thermostable DNA polymerase; combination;
KW   large fragment; genomic mapping; sequence analysis; ss.
XX
OS   Synthetic.
XX
PN   EP669401-A2.
XX
PD   30-AUG-1995.
XX
PF   16-FEB-1995;   95EP-00102141.
XX
PR   25-FEB-1994;   94US-00203198.
XX
PA   (HOFF ) HOFFMANN LA ROCHE & CO AG F.
XX
PI   Cheng S;
XX
DR   WPI; 1995-294352/39.
XX
PT   PCR amplification of long nucleic acid sequences - using a combination of
PT   the Thermus thermophilus and pref. Thermococcus litoralis DNA polymerase.
XX
PS   Example 3; Page 13; 25pp; English.
XX
CC   Primers CF1018 and CF1019 were designed from sequences within the J and
CC   cro genes of phage lambda and were used to amplify sequences from
CC   randomly selected plaques from the human genomic library in lambda FIX
CC   II. A new method was used to amplify the large genomic sequences in which
CC   Thermus thermophilus DNA polymerase was used in combination with a second
CC   DNA polymerase from Thermococcus litoralis, Pyrococcus sp. or Thermatoga
CC   maritima. The size of the amplified inserts ranged from less than 10 kb
CC   to greater than 20 kb
XX
SQ   Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        707 GACGACCAGCACCTGTTGCT 726
              || | ||||| |||||| ||
Db         20 GATGCCCAGCGCCTGTTTCT 1


RESULT 4880
AAT41357
ID   AAT41357 standard; DNA; 20 BP.
XX
AC   AAT41357;
XX
DT   04-DEC-1996  (first entry)
XX
DE   Human gene signature HUMGS01460-derived sense primer.
XX
KW   Gene signature; messenger RNA; mRNA; relative abundance; frequency;
KW   human; cloning; mapping; non-biased library; diagnosis; detection;
KW   cell typing; abnormal cell function; primer; PCR; amplification;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9514772-A1.
XX
PD   01-JUN-1995.
XX
PF   11-NOV-1994;   94WO-JP001916.
XX
PR   12-NOV-1993;   93JP-00355504.
XX
PA   (MATS/) MATSUBARA K.
PA   (OKUB/) OKUBO K.
XX
PI   Matsubara K,  Okubo K;
XX
DR   WPI; 1995-206931/27.
XX
PT   Single-stranded DNA for identifying gene signatures - isolated from 3'-
PT   directed human cDNA library that reflects relative abundance of corresp.
PT   mRNA in specific human tissues.
XX
PS   Example 7; Fig 10; 2245pp; Japanese.
XX
CC   Primers T41001-T41382 are derived from novel human gene signature (GS)
CC   sequences which did not match with sequences deposited in Genbank release
CC   76. The GS sequences (T19001-T26837) were obtained from 3'-directed cDNA
CC   libraries prepared from various human tissues; synthesis of cDNA was
CC   initiated from the 3'-end of mRNA by using poly(T) as the sole primer.
CC   Each library is constructed so as to reflect accurately the relative
CC   abundance of different mRNAs in the particular tissue from which it was
CC   derived. The appearance frequency of a given GS in a cDNA library can be
CC   determined (esp. using primers and probes derived from the GS sequences)
CC   as a means of diagnosing abnormal cell function or for recognising
CC   different cell types. The primers T41357-8 amplify clone pm2626 which
CC   comprises the GS HUMGS001460 (T20460). This amplification reaction gave a
CC   prod. indistinguisable from the same PCR using mouse or Chinese hamster
CC   ovary DNA as a template
XX
SQ   Sequence 20 BP; 6 A; 1 C; 8 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2478 ACTTTTAATGGTGATGGGGT 2497
              || || ||||| |||| |||
Db          1 ACATTGAATGGGGATGAGGT 20


RESULT 4881
AAT41087/c
ID   AAT41087 standard; DNA; 20 BP.
XX
AC   AAT41087;
XX
DT   03-DEC-1996  (first entry)
XX
DE   Human gene signature HUMGS01461-derived sense primer.
XX
KW   Gene signature; messenger RNA; mRNA; relative abundance; frequency;
KW   human; cloning; mapping; non-biased library; diagnosis; detection;
KW   cell typing; abnormal cell function; primer; PCR; amplification;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9514772-A1.
XX
PD   01-JUN-1995.
XX
PF   11-NOV-1994;   94WO-JP001916.
XX
PR   12-NOV-1993;   93JP-00355504.
XX
PA   (MATS/) MATSUBARA K.
PA   (OKUB/) OKUBO K.
XX
PI   Matsubara K,  Okubo K;
XX
DR   WPI; 1995-206931/27.
XX
PT   Single-stranded DNA for identifying gene signatures - isolated from 3'-
PT   directed human cDNA library that reflects relative abundance of corresp.
PT   mRNA in specific human tissues.
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XX
PS   Example 7; Fig 7; 2245pp; Japanese.
XX
CC   Primers T41001-T41382 are derived from novel human gene signature (GS)
CC   sequences which did not match with sequences deposited in Genbank release
CC   76. The GS sequences (T19001-T26837) were obtained from 3'-directed cDNA
CC   libraries prepared from various human tissues; synthesis of cDNA was
CC   initiated from the 3'-end of mRNA by using poly(T) as the sole primer.
CC   Each library is constructed so as to reflect accurately the relative
CC   abundance of different mRNAs in the particular tissue from which it was
CC   derived. The appearance frequency of a given GS in a cDNA library can be
CC   determined (esp. using primers and probes derived from the GS sequences)
CC   as a means of diagnosing abnormal cell function or for recognising
CC   different cell types. The primers T41087-8 amplify clone pm1160 which
CC   comprises the GS HUMGS001461 (T20461), located on chromosome 5
XX
SQ   Sequence 20 BP; 4 A; 1 C; 5 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1144 TAGTAAACCAGTGGCAGAAT 1163
              |||||||||| |  || |||
Db         20 TAGTAAACCACTCACAAAAT 1


RESULT 4882
AAQ87813/c
ID   AAQ87813 standard; DNA; 20 BP.
XX
AC   AAQ87813;
XX
DT   07-DEC-1995  (first entry)
XX
DE   Antisense oligomer to human c-myc DNA (positions 1264-2383).
XX
KW   c-myc; c-myb; procollagen; antisense oligonucleotide; restenosis;
KW   sclerosis; collagen; atherosclerosis; liver cirrhosis; acne; ss.
XX
OS   Synthetic.
XX
PN   WO9510305-A1.
XX
PD   20-APR-1995.
XX
PF   17-OCT-1994;   94WO-US011853.
XX
PR   15-OCT-1993;   93US-00138637.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1995-161579/21.
XX
PT   Inhibiting synthesis of extracellular matrix proteins - using anti-sense
PT   oligo-nucleotide(s) directed against proto-oncogene(s), for treating
PT   sclerotic disease, restenosis, inhibiting scar formation, etc.
XX
PS   Claim 34; Page 24; 76pp; English.
XX
CC   This sequence, like sequences AAQ87809-12, is an antisense
CC   oligonucleotide to Human c-myc DNA. The sequence AAQ87814 is an antisense
CC   oligonucleotide to Human c-myb DNA. These oligonucleotides inhibit
CC   secretion of procollagens I and III, in intima, media, adventitia or
CC   connective tissue. This inhibition only occurs when more than one of
CC   these sequences is present. The sequences can be used to treat sclerotic
CC   disorders, to inhibit collagen synthesis in restenosis, or reduction of
CC   scar tissue. Other applications are in treatment of atherosclerosis,
CC   liver cirrhosis, acne, etc
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTCCACGA 672
              |||  ||||| |||||| ||
Db         30 GAGCCCCTGGTGCTCCATGA 1


RESULT 4883
AAT60911/c
ID   AAT60911 standard; DNA; 20 BP.
XX
AC   AAT60911;
XX
DT   15-APR-1997  (first entry)
XX
DE   Multi-tumour aberrant growth gene contig STS 12-RM72, PCR primer.
XX
KW   High mobility group; lipoma preferred partner; fusion gene;
KW   DNA binding domain; HMGI-C; cysteine rich; zinc binding domain;
KW   LIM domain; translocation; tumour; mesenchymal; gene expression;
KW   aberrant; growth control; polymerase chain reaction; PCR; STS 12-RM72;
KW   primer; ss.
XX
OS   Synthetic.
XX
PN   EP727487-A1.
XX
PD   21-AUG-1996.
XX
PF   14-JUL-1995;   95EP-00201951.
XX
PR   17-FEB-1995;   95EP-00200390.
XX
PA   (LEUV-) LEUVEN RES & DEV.
XX
PI   Bullerdiek J,  Van De Ven WJM,  Schoenmakers HFPM,  Mols R;
XX
DR   WPI; 1996-372875/38.
XX
PT   Multi-tumour aberrant growth gene - and probes derived from it, useful in
PT   in situ diagnostic method for detecting tumour cells, e.g. mesenchymal
PT   hamartomas and rhabdomyosarcomas.
XX
PS   Example 1; Page 18; 78pp; English.
XX
CC   The primer pair AAT60910/11 was used for the PCR amplification of the STS
CC   12-RM72 (101 bp) from a YAC contig spanning about 6 Mb of genomic DNA
CC   around locus D12S8, which includes a multi-tumour aberrant growth (MAG)
CC   gene. Following 3'-RACE, the gene was found to comprise the junction
CC   region of a high mobility group protein (HMG):lipoma preferred partner
CC   (LPP) fusion gene. The protein product was predicted to contain 3 DNA
CC   binding domains (DBD) of the HMGI-C (map position 12q15), and the 3
CC   cysteine rich zinc binding (LIM) domains of the LPP (map position 3q27-
CC   28). In PCR analysis using appropriate nested amplimer sets, similar
CC   HMG:LPP hybrid transcripts were detected in various primary lipomas and
CC   lipoma cell lines carrying a chromosome 3 to 12 translocation (t(3;12)),
CC   and in a cytogenetically normal lipoma. This revealed that the
CC   cytogenetically detectable, and hidden, t(3;12) in lipomas result in the
CC   in-phase fusion of the DBD of HMGI-C to the LIM domains of LPP.
CC   Consequently, these LIM domains are most likely presented in the nuclear
CC   environment of these lipoma cells, where they might affect gene
CC   expression, possibly leading to aberrant growth control. This in an
CC   example of a benign mesenchymal tumour with chromosome 12q13-q15
CC   aberrations, where a chromosome translocation partner contributes
CC   recurrently and consistently to the formation of a well-defined tumour
CC   associated HMGI-C fusion protein
XX
SQ   Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
```

```
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2672 CAGTGTGTGTGGGTGAAATG 2691
              || |||||||  ||| |||
Db         20 CATTGTGTGTGCCTGAGATG 1


RESULT 4884
AAT60649/c
ID   AAT60649 standard; DNA; 20 BP.
XX
AC   AAT60649;
XX
DT   26-JUN-1997  (first entry)
XX
DE   Antisense oligonucleotide #3 targetting nuclear proto-oncogene.
XX
KW   Nuclear proto-oncogene; antisense oligonucleotide; inhibitor; collagen;
KW   extracellular matrix protein; haemodialysis; vascular graft; therapy;
KW   human tissue; sclerotic disorder; scar formation; vascular restenosis;
KW   fibrous connective tissue; atherosclerosis; post-surgical scarring;
KW   atherogenesis; kaloid disease; liver cirrhosis; rheumatical disorder;
KW   reconstructive surgery; ss.
XX
OS   Synthetic.
XX
PN   WO9632966-A1.
XX
PD   24-OCT-1996.
XX
PF   19-APR-1996;   96WO-US005334.
XX
PR   19-APR-1995;   95US-00424991.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1996-485560/48.
XX
PT   Use of anti:sense cpds. to inhibit inappropriate synthesis - in tissue of
PT   extracellular matrix proteins, particularly collagen, esp. type I and
PT   type III.
XX
PS   Claim 58; Page 64; 103pp; English.
XX
CC   AAT60643, and AAT60647-T60653 represent antisense oligonucleotides
CC   specific for a nuclear proto-oncogene. These sequences are used in a
CC   composition of the invention, for inhibiting synthesis of extracellular
CC   matrix proteins. These sequences can also be used in the methods of the
CC   invention. The methods of the invention all involve using at least one of
CC   these sequences to prevent or treat a disease. The methods are for
CC   preventing failure of a haemodialysis access site (HAS) of a
CC   haemodialysis patient, for treating vascular grafts and/or in an ex vivo
CC   method for preventing failure of vascular grafts made with veins, and for
CC   inhibiting the synthesis of extracellular matrix proteins in a human
CC   tissue. Other methods of the invention are for treating sclerotic
CC   disorders, for reducing scar formation in a human tissue, and for
CC   inhibiting formation of unwanted fibrous connective tissue in a human.
CC   The methods relate to the use of certain antisense compounds to inhibit
CC   the inappropriate synthesis in a tissue of extracellular matrix proteins,
CC   particularly collagen, and more particularly collagens type I and III.
CC   The inappropriate and/or excessive synthesis of extracellular matrix
CC   proteins can result in medical conditions, including sclerotic disorders,
CC   vascular restenosis, or atherosclerosis, atherogenesis, kaloid disease,
CC   liver cirrhosis, rheumatical disorders of the joints, loss of
CC   arteriovenous and venous graft potency, post-surgical scarring,
CC   reconstructive surgery and the like, generally found in human subjects
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;

  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTCCACGA 672
              |||  ||||| ||||||  ||
Db         20 GAGCCCCTGGTGCTCCATGA 1


RESULT 4885
AAT60650/c
ID   AAT60650 standard; DNA; 20 BP.
XX
AC   AAT60650;
XX
DT   26-JUN-1997  (first entry)
XX
DE   Antisense oligonucleotide #4 targetting nuclear proto-oncogene.
XX
KW   Nuclear proto-oncogene; antisense oligonucleotide; inhibitor; collagen;
KW   extracellular matrix protein; haemodialysis; vascular graft; therapy;
KW   human tissue; sclerotic disorder; scar formation; vascular restenosis;
KW   fibrous connective tissue; atherosclerosis; post-surgical scarring;
KW   atherogenesis; kaloid disease; liver cirrhosis; rheumatical disorder;
KW   reconstructive surgery; ss.
XX
OS   Synthetic.
XX
PN   WO9632966-A1.
XX
PD   24-OCT-1996.
XX
PF   19-APR-1996;   96WO-US005334.
XX
PR   19-APR-1995;   95US-00424991.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1996-485560/48.
XX
PT   Use of anti:sense cpds. to inhibit inappropriate synthesis - in tissue of
PT   extracellular matrix proteins, particularly collagen, esp. type I and
PT   type III.
XX
PS   Disclosure; Page 64; 103pp; English.
XX
CC   AAT60643, and AAT60647-T60653 represent antisense oligonucleotides
CC   specific for a nuclear proto-oncogene. These sequences are used in a
CC   composition of the invention, for inhibiting synthesis of extracellular
CC   matrix proteins. These sequences can also be used in the methods of the
CC   invention. The methods of the invention all involve using at least one of
CC   these sequences to prevent or treat a disease. The methods are for
CC   preventing failure of a haemodialysis access site (HAS) of a
CC   haemodialysis patient, for treating vascular grafts and/or in an ex vivo
CC   method for preventing failure of vascular grafts made with veins, and for
CC   inhibiting the synthesis of extracellular matrix proteins in a human
CC   tissue. Other methods of the invention are for treating sclerotic
CC   disorders, for reducing scar formation in a human tissue, and for
CC   inhibiting formation of unwanted fibrous connective tissue in a human.
CC   The methods relate to the use of certain antisense compounds to inhibit
CC   the inappropriate synthesis in a tissue of extracellular matrix proteins,
CC   particularly collagen, and more particularly collagens type I and III.
CC   The inappropriate and/or excessive synthesis of extracellular matrix
CC   proteins can result in medical conditions, including sclerotic disorders,
CC   vascular restenosis, or atherosclerosis, atherogenesis, kaloid disease,
CC   liver cirrhosis, rheumatical disorders of the joints, loss of
CC   arteriovenous and venous graft potency, post-surgical scarring,
CC   reconstructive surgery and the like, generally found in human subjects
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
```

```
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTCCACGA 672
              |||  ||||| ||||||  ||
Db         20 GAGCCCCTGGTGCTCCATGA 1


RESULT 4886
AAT48940/c
ID   AAT48940 standard; DNA; 20 BP.
XX
AC   AAT48940;
XX
DT   18-SEP-1997  (first entry)
XX
DE   Complementary human MRP oligonucleotide OL(8)MRP prototype.
XX
KW   Human multidrug resistance-1; MDR-1; inhibition; aptameric;
KW   human multidrug resistance-associated protein; antisense; cytotoxic;
KW   chemotherapeutic; cancer; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .20
FT                   /*tag=  a
FT                   /note= "Backbone selected from: phosphorothioate;
FT                   dithioate; methylphosphonate; phosphodiester; morpholino
FT                   backbone; polyamide backbone; and any combination of
FT                   these backbone types; the backbone may be modified to
FT                   incorporate a ribozyme structure, or a pendant group"
XX
PN   WO9640715-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US009388.
XX
PR   07-JUN-1995;   95US-00487141.
XX
PA   (UYNE-) UNIV NEBRASKA.
XX
PI   Smith LJ;
XX
DR   WPI; 1997-052217/05.
XX
PT   Oligo-nucleotide(s) able to inhibit multi:drug resistant phenotype -
PT   either by anti:sense or aptameric effects, useful for enhancing cytotoxic
PT   effects of chemotherapeutic agents on multi:drug resistant cancer cells.
XX
PS   Claim 16; Page 17; 74pp; English.
XX
CC   The present sequence represents a novel oligonucleotide OL(8)MRP
CC   prototype that specifically hybridises in a human cell with a
CC   complementary sequence of human multidrug resistance-associated protein
CC   (MRP) gene. Hybridisation causes inhibition of expression of the
CC   multidrug resistance phenotype by the cell, due to the oligonucleotide
CC   having an aptameric inhibitory effect as well as an antisense inhibitory
CC   effect. The oligonucleotide is administered to cancer patients to prevent
CC   development of the multidrug resistant phenotype. When co-administered
CC   with chemotherapeutic agents, the oligonucleotide is useful for
CC   potentiating elimination of multidrug resistant tumour cells from bone
CC   marrow or peripheral stem cell grafts. Also, the oligonucleotide can be
CC   used as an immunosuppressive agent
XX
SQ   Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        415 CGCCGCCGCCATCAACCCCC 434
              |||||||  ||||| ||| |
Db         20 CGCCGCCATCATCATCCCGC 1


RESULT 4887
AAT50903/c
ID   AAT50903 standard; DNA; 20 BP.
XX
AC   AAT50903;
XX
DT   26-AUG-1997  (first entry)
XX
DE   Probe #17 for interleukin-6 receptor.
XX
KW   Probe; interleukin-6 receptor; IL-6R; cytokine; cellular proliferation;
KW   transmembrane glycoprotein receptor; signal transducer; gp130; inhibitor;
KW   IL-6; cancer; renal cell carcinoma; autoimmune disease; viral infection;
KW   therapy; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .20
FT                   /*tag=  a
FT                   /note= "optionally phosphorothioated"
XX
PN   EP747386-A2.
XX
PD   11-DEC-1996.
XX
PF   07-JUN-1996;   96EP-00304315.
XX
PR   07-JUN-1995;   95US-00484666.
PR   07-JUN-1995;   95US-00486408.
XX
PA   (GENP-) GEN-PROBE INC.
XX
PI   Brown SJ,  Dattagupta N,  Naidu YM;
XX
DR   WPI; 1997-023093/03.
XX
PT   Oligo:nucleotide(s) complementary to interleukin-6 receptor mRNA - for
PT   treating proliferative diseases, e.g. cancer, auto-immune diseases or
PT   viral infections.
XX
PS   Claim 1; Page 16; 18pp; English.
XX
CC   AAT50887-T50904 represent oligonucleotides of the invention. These
CC   sequences are all probes for interleukin-6 receptor (IL-6R) mRNA. IL-6 is
CC   one of the most well characterised of the cytokines. It functions through
CC   interacting with at least two transmembrane glycoprotein receptor
CC   molecules on the surface of target cells. The receptors are the IL-6R,
CC   and the signal transducer gp130. Signal transduction by IL-6 involves the
CC   concerted action of both IL-6R and gp130. IL-6 overproduction is
CC   implicated in many different disease states, particularly in cellular
CC   proliferation associated with these diseases. These sequences bind to the
CC   IL-6R coding sequence, thereby inhibiting IL-6R production. The sequences
CC   therefore inhibit the functioning of IL-6. These sequences can be used
CC   for inhibiting disease-associated cellular proliferation. The
CC   oligonucleotides are especially useful for treating cancer (e.g. renal
CC   cell carcinoma), autoimmune diseases or viral infections. They can also
CC   be used as probes for detecting IL-6 receptor mRNA, especially for
CC   evaluating the effectiveness of drugs in reducing IL-6 receptor mRNA
CC   levels
XX
SQ   Sequence 20 BP; 2 A; 8 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        451 CACAGGCAGCCAGCAGCAGG 470
              | |||| |||| || |||||
```

```
Db         20 CTCAGGAAGCCGGCTGCAGG 1


RESULT 4888
AAT95343/c
ID   AAT95343 standard; DNA; 20 BP.
XX
AC   AAT95343;
XX
DT   20-APR-1998  (first entry)
XX
DE   Treatment of human melanoma using c-myc oligonucleotide 10.
XX
KW   Melanoma; c-myc oligonucleotide; c-myc mRNA; cis-platin; inhibition;
KW   metastasis; treatment; proliferation; human; tumour; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9736005-A1.
XX
PD   02-OCT-1997.
XX
PF   24-MAR-1997;   97WO-US004703.
XX
PR   26-MAR-1996;   96US-0014089P.
XX
PA   (LYNX-) LYNX THERAPEUTICS INC.
XX
PI   Zupi G;
XX
DR   WPI; 1997-489662/45.
XX
PT   Inhibiting proliferation of human melanoma cells with anti-c-myc
PT   oligo:nucleotide(s) - particularly used together with cis-platin,
PT   inhibits metastasis, induces regression or prevents further growth.
XX
PS   Claim 1; Page 22; 68pp; English.
XX
CC   This c-myc oligonucleotide is complementary to a sequence of human c-myc
CC   mRNA and is used for inhibiting the proliferation of human melanoma cells
CC   (HMC). The c-myc oligonucleotide is at least 10 bases long and inhibits
CC   proliferation of HMC by at least 10 percent at 10 mu M, when the cells
CC   are cultured at 37 degree. C in presence of serum. The method is
CC   particularly used to treat human melanoma, and inhibits metastasis,
CC   promotes regression or prevents any increase in tumour mass. The c-myc
CC   oligonucleotide can be used together with cis-platin and which then
CC   reduces resistance of tumour cells to cis-platin. The oncogene c-myc is
CC   found to be essential for growth and metastasis of melanoma, and the c-
CC   myc oligonucleotides are designed to target double-stranded DNA or single
CC   -stranded RNA. A combination of c-myc oligonucleotide and cis-platin is
CC   more effective than either component used alone
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTCCACGA 672
              ||| ||||| |||||| ||
Db         20 GAGCCCCTGGTGCTCCATGA 1


RESULT 4889
AAT61084/c
ID   AAT61084 standard; DNA; 20 BP.
XX
AC   AAT61084;
XX
DT   06-OCT-1997  (first entry)
XX
DE   Mouse Apo E forward reverse primer.
XX
KW   primer; PCR; polymerase chain reaction; human apolipoprotein E; apo E;
KW   exon 3; transgenic mouse; screen; development; function; aging;
KW   regulation; lipid metabolism; Alzheimer's disease; neuronal disease;
KW   antibody; diagnostic test; ss.
XX
OS   Synthetic.
XX
PN   WO9705247-A1.
XX
PD   13-FEB-1997.
XX
PF   10-JUL-1996;   96WO-US011394.
XX
PR   31-JUL-1995;   95US-00509521.
XX
PA   (UYDU-) UNIV DUKE.
XX
PI   Roses AD,  Gilbert JR,  Xu P,  Schmechel DE;
XX
DR   WPI; 1997-145685/13.
XX
PT   Transgenic animal expressing human apolipo:protein E - but no endogenous
PT   apoE, useful for screening potential therapeutic agents and for studying
PT   effects of different isoforms on brain biology, etc.
XX
PS   Example 4; Page 14; 30pp; English.
XX
CC   AAT61083-84 are mouse apolipoprotein E (apo E) knockout primers
CC   synthesised from the mouse DNA sequence spanning the disrupted (knockout
CC   region). PCR was performed to detect the presence of the human Apo E gene
CC   in transgenic mouse pups and to identify their genotypes. Non-human
CC   transgenic mammals comprising cells expressing a human apo E transgene
CC   and which are unable to express endogenous apo E are claimed. The animal
CC   is used to test compounds (possible therapeutic agents) for their ability
CC   to affect activities of the different apo E isoforms, and to study the
CC   effects of different isoforms on brain biology, development, function,
CC   aging, and injury, e.g. their involvement in the regulation of lipid
CC   metabolism or development of Alzheimer's or other neuronal diseases. The
CC   animal can also be a source of apo E proteins for the generation of
CC   specific antibodies, for use in diagnostic tests
XX
SQ   Sequence 20 BP; 5 A; 3 C; 8 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        706 CGACGACCAGCACCTGTTGC 725
              |||  |||| ||||| ||||
Db         20 CGAGTACCATCACCTCTTGC 1


RESULT 4890
AAT47409
ID   AAT47409 standard; DNA; 20 BP.
XX
AC   AAT47409;
XX
DT   10-SEP-1997  (first entry)
XX
DE   Primer #35 for cystic fibrosis transmembrane regulator gene.
XX
KW   PCR; primer; amplify; polymerase chain reaction; bacteriophage; M13mp18;
KW   cystic fibrosis transmembrane conductance regulator gene; multiplex PCR;
KW   chimeric primer; genetic screening; mutation detection; CFTR;
KW   Wilms Tumour gene; beta-thalassaemia gene; ss.
XX
OS   Synthetic.
XX
PN   WO9641012-A1.
XX
PD   19-DEC-1996.
```

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XX
PF   06-JUN-1996;   96WO-US009637.
XX
PR   07-JUN-1995;   95US-00474450.
XX
PA   (GENZ ) GENZYME CORP.
XX
PI   Shuber AP;
XX
DR   WPI; 1997-052372/05.
XX
PT   Universal primer used for multiplex DNA amplification - allows
PT   simultaneous amplification of multiple DNA target sequences for high
PT   through-put genetic screening.
XX
PS   Example 3; Fig 1b; 38pp; English.
XX
CC   AAT47375-T47409 represent amplification primers for the cystic fibrosis
CC   transmembrane regulator (CFTR) gene. These sequences can be used as half
CC   of the chimeric primer of the invention. The primers are used for
CC   amplification of a target DNA sequence, and can be used in a multiplex
CC   PCR amplification. The primers have the sequence 5'-XY-3', where X is a
CC   sequence that does not hybridise to the target sequence (such as AAT47344
CC   -T47374), and Y is a sequence contained within or flanking the target
CC   sequence (such as this sequence). During early cycles of amplification,
CC   products are synthesised that contain the chimeric primers on either end.
CC   The primers then serve as high stringency recognition sequences for
CC   subsequent rounds of amplification. As a result, the annealing efficiency
CC   of different primers and their targets in a multiplex amplification
CC   reaction is normalised, thereby reducing preferential amplification of
CC   certain targets. The chimeric primer comprise a 5' universal domain and a
CC   3' target-specific domain. They are used for the simultaneous PCR
CC   amplification of multiple DNA targets in a sample. The primer containing
CC   AAT47344 is particularly useful in high-throughput genetic screening for
CC   detecting the presence of multiple defined targets e.g. to detect
CC   mutations in genes like the CFTR, the Wilms Tumour, and the beta-
CC   thalassaemia genes
XX
SQ   Sequence 20 BP; 6 A; 5 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        710 GACCAGCACCTGTTGCTGCA 729
              ||  || |||||||||| ||
Db          1 GAAAAGTACCTGTTGCTCCA 20


RESULT 4891
AAT76385/c
ID   AAT76385 standard; DNA; 20 BP.
XX
AC   AAT76385;
XX
DT   15-SEP-1997  (first entry)
XX
DE   Human tumour necrosis factor alpha antisense oligonucleotide HSTNFAAS4.
XX
KW   Asthma; airway epithelium; adenosine free; cystic fibrosis;
KW   chronic obstructive pulmonary disease; bronchitis; ss.
XX
OS   Synthetic.
XX
PN   WO9640162-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US009306.
XX
PR   07-JUN-1995;   95US-00474497.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW,  Metzger WJ;
XX
DR   WPI; 1997-051871/05.
XX
PT   Treatment of airway diseases such as asthma - by topically applying
PT   adenosine-free antisense oligo:nucleotide to airway epithelium of
PT   subject.
XX
PS   Claim 5; Page 37; 71pp; English.
XX
CC   A method for treating airway disease in a subject has been produced,
CC   which involves the topical administration of an essentially adenosine
CC   free antisense oligonucleotide (ON) to the airway epithelium of the
CC   subject. The present sequence is an antisense oligonucleotide HSTNFAAS4
CC   specific for the human tumour necrosis factor alpha. The method can be
CC   used to treat airway diseases such as cystic fibrosis, asthma, chronic
CC   obstructive pulmonary disease, bronchitis and other airway diseases
CC   characterised by an inflammatory response. By eliminating adenosine from
CC   the antisense ON, its liberation upon antisense degradation is prevented,
CC   thereby preventing adenosine- induced bronchoconstriction in patients
CC   with hyper-reactive airways
XX
SQ   Sequence 20 BP; 0 A; 9 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        478 CGGCCGCCAGAGCCAGGAGG 497
              ||||| ||||||  | ||||
Db         20 CGGCCCCCAGAGGGAAGAGG 1


RESULT 4892
AAT48467/c
ID   AAT48467 standard; DNA; 20 BP.
XX
AC   AAT48467;
XX
DT   12-APR-1997  (first entry)
XX
DE   Third-strand oligonucleotide purine motif for TDR.
XX
KW   Haemoglobinopathy; sickle cell anaemia; haemoglobin; beta-globin; HbS;
KW   HbA; gene therapy; triple helix; triplex; psoralen; mutagen;
KW   targeted DNA replacement; TDR; homologous recombination; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_difference 2
FT                   /*tag=  a
FT                   /note= "psoralen attachment site"
XX
PN   WO9640271-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US009430.
XX
PR   07-JUN-1995;   95US-00473845.
XX
PA   (UYYA ) UNIV YALE.
XX
PI   Glazer PM;
XX
DR   WPI; 1997-099895/09.
XX
PT   Repairing mutation(s) in haemoglobin by targetted mutagenesis or
PT   homologous recombination - mediated by a triplex forming
PT   oligo:nucleotide, opt. carrying a mutagen, partic. for treatment of
PT   sickle cell anaemia or thalassemia.
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XX
PS   Claim 35; Page 46; 70pp; English.
XX
CC   Third-strand oligonucleotides (AAT48467-70) bind to a purine-rich region
CC   (see also AAT48455) located at position 2655 in the beta-globin gene (see
CC   also AAT48454). They can be utilised in a targetted DNA replacement (TDR)
CC   method to correct a mutation that leads to sickle cell anaemia. In TDR, a
CC   third-strand oligonucleotide is targetted to a binding region in the
CC   gene, where it induces DNA damage. This stimulates homologous
CC   recombination with an introduced donor nucleic acid strand. TDR is highly
CC   specific and, since the corrected gene is in its native chromosome, the
CC   cure is permanent. The purine motif given in AAT48467 employs parallel
CC   polarity, which is preferred because the target is A-rich
XX
SQ   Sequence 20 BP; 13 A; 0 C; 7 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTT 2174
              ||| |||| |||| |||| |
Db         20 TTTCTTTCCCCTTCTTTTCT 1


RESULT 4893
AAT68337
ID   AAT68337 standard; DNA; 20 BP.
XX
AC   AAT68337;
XX
DT   11-AUG-1997  (first entry)
XX
DE   Loci-specific primer for assessing integrity of human Y chromosome.
XX
KW   Y chromosome; integrity; chromosome locus; primer; amplification; PCR;
KW   polymerase chain reaction; fertility; azoospermia; oligospermia;
KW   infertile; diagnosis; DYS209; DYF43S1; DYS210; DYS211; DYS33; DYS1; SMCX;
KW   DAZ(1); DYS218; DYS219; DYS212; DYF53S1; DYS205; DYS281; MIC2; DYS201;
KW   DYS241; DYSl98; SRY; DYSl97; DYSl96; DYS24O; DYS271; DYS221; KAL182;
KW   DAZ(2); DYS224; DYS226; DYS222; DYS227; DYS229; DYZ1; DYS230; DAZ(3);
KW   DAZ(4); DAZ(5); SMCY; DYS217; DYS220; DYS223; DYS7; DYS237; DYS215; DYS7;
KW   DYS237; DAZ(6); DAZ(7); DAZ(8); DAZ(9); DAZ(10); DAZ(11); YRRM1; ZFY;
KW   BKM; ss.
XX
OS   Homo sapiens.
XX
PN   WO9641007-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US009421.
XX
PR   07-JUN-1995;   95US-00472416.
PR   18-SEP-1995;   95US-00531556.
XX
PA   (PROM-) PROMEGA CORP.
XX
PI   First MK,  Agoulnik AI,  Muallem A;
XX
DR   WPI; 1997-099942/09.
XX
PT   Assessing integrity of Y chromosome - by amplification of selected human
PT   chromosome loci by multiplex PCR and comparison with normal control DNA.
XX
PS   Claim 2; Page 52; 111pp; English.
XX
CC   AAT68337-T68346 are a set of primers used in a method for assessing the
CC   integrity of a Y chromosome. The primers are capable of priming the
CC   chromosome loci: DYS240, DYS271, DYS221, KAL182, DAZ(2) and MIC2. The
CC   method can be used to rapidly and reproducibly assess the integrity of
CC   specific regions of the Y chromosome that are associated with male
CC   fertility. It can be used to assess the integrity of the Y chromosome in
CC   males exhibiting azoospermia or oligospermia (no or very little
CC   spermatozoa in the semen) or to assess the genotype of infants of
CC   phenotypically ambiguous sexuality. The method can also be used in
CC   diagnosis and quality control
XX
SQ   Sequence 20 BP; 8 A; 3 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1078 CTTAGTAGAAGGTGAAGCTG 1097
              ||||| | || ||||||| |
Db          1 CTTAGGAAAAAGTGAAGCCG 20


RESULT 4894
AAV40288
ID   AAV40288 standard; DNA; 20 BP.
XX
AC   AAV40288;
XX
DT   13-OCT-1998  (first entry)
XX
DE   Rat insulin-like growth factor binding protein 3 PCR primer #1.
XX
KW   Rat; insulin-like growth factor binding protein; IGF; IGFBP; diabetes;
KW   amyotrophic lateral sclerosis; free insulin-like growth factor;
KW   osteoporosis; PCR primer; ss.
XX
OS   Synthetic.
OS   Rattus sp.
XX
PN   WO9829451-A1.
XX
PD   09-JUL-1998.
XX
PF   26-DEC-1997;   97WO-JP004881.
XX
PR   27-DEC-1996;   96JP-00349968.
XX
PA   (DAUC ) DAIICHI PHARM CO LTD.
XX
PI   Sakano K,  Higashihashi N,  Hashimoto R;
XX
DR   WPI; 1998-388049/33.
XX
PT   Elevation of free insulin growth factor concentration in vivo - by
PT   administration of substance which inhibits binding of factor to insulin
PT   growth factor binding protein and acid-labile sub-units, for treatment of
PT   diabetes and other diseases.
XX
PS   Example 2; Page 22; 67pp; Japanese.
XX
CC   A method has been developed to elevate the concentration of free insulin-
CC   like growth factor (IGF) in vivo by administration of a substance which
CC   is able to produce free IGF from the complex of IGF with insulin-like
CC   growth factor binding protein (IGFBP) or from the triple complex of IGF,
CC   IGFBP and acid-labile protein subunits (ALS) found in living tissue. The
CC   substances are obtained by screening potential candidate substances in
CC   vitro for their ability to free IGF from the complexes or for their
CC   ability to inhibit the binding of IGF to IGFBP. The present sequence
CC   represents a PCR primer for rat IGFBP-3 used in an example from the
CC   present invention. Also described are: (1) the use of substances able to
CC   form the IGF/IGFBP complex from the triple complex, and (2) substances
CC   which bind to IGFBP but do not bind either to insulin receptors or IGF
CC   receptors. All these substances can be used as the active components in
CC   drug formulations. Treatment and prevention of diseases for which IGF is
CC   a suitable treatment agent, such as diabetes, osteoporosis and
CC   amyotrophic lateral sclerosis
XX
SQ   Sequence 20 BP; 2 A; 11 C; 5 G; 2 T; 0 U; 0 Other;
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```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        628 CGCCCTGGATGCCGCGGGCC 647
              |||| || || ||||| |||
Db          1 CGCCATGCATCCCGCGCGCC 20


RESULT 4895
AAV20979
ID   AAV20979 standard; DNA; 20 BP.
XX
AC   AAV20979;
XX
DT   08-SEP-1998  (first entry)
XX
DE   Human PRCC-TFE3 construct DNA PCR primer #15.
XX
KW   PRCC; papillary renal cell carcinoma; TFE3; transcription factor;
KW   fusion protein; translocation; diagnosis; treatment; PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9806871-A1.
XX
PD   19-FEB-1998.
XX
PF   13-AUG-1997;   97WO-GB002209.
XX
PR   13-AUG-1996;   96GB-00016986.
XX
PA   (CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
XX
PI   Cooper C,  Clark J,  Shipley J;
XX
DR   WPI; 1998-159557/14.
XX
PT   Diagnosing papillary renal cell carcinoma by detecting gene trans-
PT   location - resulting in fusion of TFE3 gene with some other gene, also
PT   related vectors, transformed cells, specific binding reagents, peptide(s)
PT   encoded by fusions and therapeutic anti-sense sequences.
XX
PS   Disclosure; Page 33; 71pp; English.
XX
CC   AAV20965-V20991 are PCR primers used in the construction of a novel
CC   fusion protein constructed from a papillary renal cell carcinoma (PRCC)
CC   associated protein and the transcription factor TFE3 which is used in a
CC   method for the diagnosis, prophylactic and therapeutic treatment of
CC   papillary renal cell carcinoma. The translocation t(X;1) (p11.2;q21.2)
CC   found in PRCC results in a fusion of the TFE3 gene with a new chromosome
CC   1 gene designated PRCC (at 1q21.2), resulting in expression of a fusion
CC   protein between the N-terminus of PRCC and almost the whole of the TFE3
CC   gene. Normal TFE3 transcripts are no longer produced. Two other fusion
CC   partners for TFE3 have also been detected; NonO, from a invX (p11.2; q13-
CC   24 or 12) translocation and the PSF splice factor gene, resulting in t(X;
CC   1) (p11.2;p34). These trans-locations define a subgroup of PRCC generally
CC   encountered in patients younger than 25
XX
SQ   Sequence 20 BP; 4 A; 4 C; 8 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2642 TGGGCTGAACCCTAAGGTGA 2661
              || |||| |||| | |||||
Db          1 TGAGCTGGACCCGATGGTGA 20


RESULT 4896
AAV57186/c
ID   AAV57186 standard; DNA; 20 BP.
XX
AC   AAV57186;
XX
DT   25-MAR-2003  (revised)
DT   06-JAN-1999  (first entry)
XX
DE   Human Notch-3 mutant gene primer #23.
XX
KW   Human; Notch3; transmembrane receptor; lateral inhibition; regulation;
KW   developmental cascade; neurogenic gene; mutant; neurological disorder;
KW   cerebral autosomal dominant arteriopathy; subcortical infarct; CADASIL;
KW   leukoencephalopathy; therapy; PCR; primer; amplification; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   FR2751985-A1.
XX
PD   06-FEB-1998.
XX
PF   01-AUG-1996;   96FR-00009733.
XX
PR   01-AUG-1996;   96FR-00009733.
XX
PA   (INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
XX
PI   Tournier LE,  Joutel A,  Bousser MG,  Bach JF;
XX
DR   WPI; 1998-133137/13.
XX
PT   Human Notch3 nucleic acids - and methods for identifying pre-disposition
PT   to cerebral autosomal dominant arteriopathy with sub-cortical infarcts
PT   and leukoencephalopathy.
XX
PS   Example 3; Page 21; 42pp; French.
XX
CC   Primers AAV57164-V57197 are used to detect mutations in a partial human
CC   Notch-3 gene (AAV57163). Primers AAV57186-V57187 amplify a fragment from
CC   exon N17. Notch3 is a transmembrane receptor protein involved in lateral
CC   inhibition and regulating developmental cascades of neurogenic genes.
CC   Mutated Notch3 proteins are thought to be involved in neurological
CC   disorders, especially of the cerebral autosomal dominant arteriopathy
CC   with subcortical infarcts and leukoencephalopathy (CADASIL) type.
CC   Blocking expression of a mutated Notch3 gene or by substitution therapy
CC   with non-mutated Notch3 gene or protein can be used to treat CADASIL or
CC   related disorders. (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 20 BP; 1 A; 8 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1540 AGGAGAGTAGGGAAGGAACA 1559
              |||||||| |   |||||||
Db         20 AGGAGAGTGGCACAGGAACA 1


RESULT 4897
AAV42472
ID   AAV42472 standard; DNA; 20 BP.
XX
AC   AAV42472;
XX
DT   02-OCT-1998  (first entry)
XX
DE   PCR primer 1 used to amplify human loci DYS240 DNA.
XX
KW   Assay; Y chromosome; Y chromosome loci; human; male fertility; detection;
KW   deletion mutation; male infertility; PCR primer; ss.
XX
OS   Synthetic.
```

OS Homo sapiens.
XX
PN WO9824937-A2.
XX
PD 11-JUN-1998.
XX
PF 04-DEC-1997; 97WO-US023136.
XX
PR 04-DEC-1996; 96US-00753979.
XX
PA (PROM-) PROMEGA CORP.
XX
PI First MK, Muallem A;
XX
DR WPI; 1998-333352/29.
XX
PT Assessing Y chromosome integrity in predicting human male infertility -
PT by amplifying specific regions of human Y chromosome linked to normal
PT fertility by multiplex PCR and detecting deletion mutations.
XX
PS Claim 2; Page 25; 47pp; English.
XX
CC PCR primers AAV42472-511 are used in a method for assessing the integrity
CC of a Y chromosome. Genomic DNA, or blood, from a subject is combined with
CC several distinct oligonucleotide primer pairs capable of simultaneously
CC priming several human Y chromosome loci which are linked to normal
CC fertility in human males. The present primer pair (AAV42472-73) amplify
CC loci DYS240. The primer pairs are amplified by multiplex PCR, yielding
CC amplified chromosomal DNA fragments which are isolated and compared with
CC those from normal male subjects. The method is useful to detect deletion
CC mutations on a Y chromosome which are predictive of human male
CC infertility
XX
SQ Sequence 20 BP; 8 A; 3 C; 6 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1078 CTTAGTAGAAGGTGAAGCTG 1097
||||| | || ||||||| |
Db 1 CTTAGGAAAAAGTGAAGCCG 20

RESULT 4898
AAV35081/c
ID AAV35081 standard; DNA; 20 BP.
XX
AC AAV35081;
XX
DT 28-AUG-1998 (first entry)
XX
DE Antisense MDR1 oligonucleotide #21.
XX
KW P-glycoprotein; multiple drug resistance; MDR; cellular uptake; cancer;
KW gene expression; chemotherapy; treatment; hyper-proliferative disease;
KW primer; ss.
XX
OS Synthetic.
XX
PN WO9814615-A1.
XX
PD 09-APR-1998.
XX
PF 01-OCT-1997; 97WO-US017800.
XX
PR 04-OCT-1996; 96US-00731199.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Dean NM, Manoharan M;
XX
DR WPI; 1998-240109/21.
XX
PT Anti-sense oligo:nucleotide(s) targetted to multiple drug resistance gene
PT - are modified by lipophilic substituent, on sugar and-or with non-
PT natural linkages, used to improve activity of anti-proliferative agents
PT against tumours.
XX
PS Example 1; Page 21; 64pp; English.
XX
CC AAV35061-V35101 are primers which have a sequence complementary to the
CC translation initiation or termination region of a nucleic acid encoding a
CC P-glycoprotein associated with multiple drug resistance (MDR) and
CC inhibits expression of the glycoprotein. These primers are composed of 8-
CC 30 covalently linked nucleotides and includes at least 1 of the
CC following, a 2'-modification, a lipophilic group (LG) that improves
CC cellular uptake, and at least 1 covalent link that is a phosphorothioate,
CC phospho di- or tri-ester, methylphosphonate, methylene (methylimino),
CC morpholino, polyamide, short chain alkyl or heteroatomic inter-sugar
CC link, or cycloalkyl or heterocyclic inter-sugar link. The primers are
CC used to modulate human MDR gene expression in cells and tissues, i.e. to
CC improve chemotherapeutic treatment of an animal with hyper-proliferative
CC disease, particularly cancer, to prevent development of MDR and to re-
CC sensitise an animal that has developed MDR to a chemotherapeutic agent
XX
SQ Sequence 20 BP; 7 A; 0 C; 3 G; 10 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2756 TGTATAATAAAAGTATTCTT 2775
| |||||||||| || |||
Db 20 TCTATAATAAAACTAAACTT 1

RESULT 4899
AAV48864/c
ID AAV48864 standard; DNA; 20 BP.
XX
AC AAV48864;
XX
DT 15-OCT-1998 (first entry)
XX
DE ErbB-2 gene antisense oligonucleotide ErbB-2-N-73.
XX
KW ErbB-2; antisense oligonucleotide; modulate; gene expression; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN EP856579-A1.
XX
PD 05-AUG-1998.
XX
PF 31-JAN-1997; 97EP-00101531.
XX
PR 31-JAN-1997; 97EP-00101531.
XX
PA (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
XX
PI Schlingensiepen K, Brysch W;
XX
DR WPI; 1998-400910/35.
XX
PT Preparation of antisense oligo:nucleotide(s) which lack long runs of
PT consecutive guanosine or inosine - and have specific ratio of residues
PT able to form two or three hydrogen bonds, have greater activity and
PT reduced toxicity, used therapeutically or to modulate growth of cells in
PT culture.
XX
PS Example 4; Fig 6d; 286pp; English.
XX
CC AAV48709-886 represent antisense oligonucleotides directed against the
CC ErbB-2 gene. Of these, only oligonucleotides AAV48709-91 resulted in

```
CC   significant redcution in ErbB-2 protein expression, while
CC   oligonucleotides AAV48792-886 had little effect. The oligonucleotides
CC   exemplify the invention. The specification describes oligonucleotides
CC   that contain 8-30 nucleotides, which contain at most 8 nucleotides that
CC   can each form three hydrogen bonds to cytosine; do not contain four
CC   consecutive nucleotides able to form three H-bonds each to four
CC   consecutive cytosines; do not contain two sequences of three consecutive
CC   nucleotides each able to form three H-bonds to three consecutive
CC   cytosines, and the ratio between residues able to form two H-bonds each
CC   (2R) or three such bonds (3R) is given by 2R/3R = 0.33-0.72. The
CC   oligonucleotides are used to modulate expression of genes, particularly
CC   the genes for p53, ErB-2, junB, junD, TGF-beta 1 or beta 2 to control
CC   proliferation of primary cell cultures (e.g. bone marrow stem, liver or
CC   kidney cells, osteoclasts, osteoblasts and/or keratinocytes). The
CC   oligonucleotides can also be used to analyse function of proteins (by
CC   altering their expression or activity) and therapeutically, e.g. in cases
CC   of cancer or (targeting TGF) for stimulating the immune system
XX
SQ   Sequence 20 BP; 16 A; 2 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2161 TCTCCTTTTTTTTTTTTTTT 2180
              | | |||||||| |||| ||
Db         20 TTTACTTTTTTTGTTTTGTT 1


RESULT 4900
AAV48673/c
ID   AAV48673 standard; DNA; 20 BP.
XX
AC   AAV48673;
XX
DT   15-OCT-1998  (first entry)
XX
DE   junB gene antisense oligonucleotide JunB-T-2.
XX
KW   junB; junD; antisense oligonucleotide; modulate; gene expression; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   EP856579-A1.
XX
PD   05-AUG-1998.
XX
PF   31-JAN-1997;   97EP-00101531.
XX
PR   31-JAN-1997;   97EP-00101531.
XX
PA   (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
XX
PI   Schlingensiepen K,  Brysch W;
XX
DR   WPI; 1998-400910/35.
XX
PT   Preparation of antisense oligo:nucleotide(s) which lack long runs of
PT   consecutive guanosine or inosine - and have specific ratio of residues
PT   able to form two or three hydrogen bonds, have greater activity and
PT   reduced toxicity, used therapeutically or to modulate growth of cells in
PT   culture.
XX
PS   Example 3; Fig 5c; 286pp; English.
XX
CC   AAV48564-708 represent antisense oligonucleotides directed against the
CC   junB and junD genes. Of these, only oligonucleotides AAV48565-614
CC   resulted in effective downregulation of negative growth control by JunB
CC   or JunD, while AAV48615-708 had little effect. The oligonucleotides
CC   exemplify the invention. The specification describes oligonucleotides
CC   that contain 8-30 nucleotides, which contain at most 8 nucleotides that
CC   can each form three hydrogen bonds to cytosine; do not contain four
CC   consecutive nucleotides able to form three H-bonds each to four
CC   consecutive cytosines; do not contain two sequences of three consecutive
CC   nucleotides each able to form three H-bonds to three consecutive
CC   cytosines, and the ratio between residues able to form two H-bonds each
CC   (2R) or three such bonds (3R) is given by 2R/3R = 0.33-0.72. The
CC   oligonucleotides are used to modulate expression of genes, particularly
CC   the genes for p53, ErbB-2, junB, junD, TGF-beta 1 or beta 2 to control
CC   proliferation of primary cell cultures (e.g. bone marrow stem, liver or
CC   kidney cells, osteoclasts, osteoblasts and/or keratinocytes). The
CC   oligonucleotides can also be used to analyse function of proteins (by
CC   altering their expression or activity) and therapeutically, e.g. in cases
CC   of cancer or (targeting TGF) for stimulating the immune system
XX
SQ   Sequence 20 BP; 1 A; 4 C; 13 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       283 CTACAGCCCCGCGCCACCCC 302
             ||||   ||||||||| |||
Db        20 CTACCCGCCCGCGCCAGCCC 1


RESULT 4901
AAV70022
ID   AAV70022 standard; DNA; 20 BP.
XX
AC   AAV70022;
XX
DT   04-FEB-1999  (first entry)
XX
DE   Mouse c-Fos protein antisense oligonucleotide #67.
XX
KW   Mouse; c-fos; c-jun; activating protein 1; AP-1; diagnosis; metastasis;
KW   antisense oligonucleotide; phosphorothioate; regulation;
KW   malignant tumour; cell cycle expression; hyperproliferative disease; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /note= "phosphorothioate linkages"
XX
PN   WO9846272-A1.
XX
PD   22-OCT-1998.
XX
PF   14-APR-1998;   98WO-US007386.
XX
PR   14-APR-1997;   97US-00837201.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean NM,  Mckay R,  Miraglia L,  Baker B;
XX
DR   WPI; 1998-609906/51.
XX
PT   Antisense oligonucleotides regulating Activating Protein 1 subunits -
PT   hybridise with c-fos and c-jun mRNA, used for regulating metastasis, cell
PT   cycle expression and hyperproliferative disease.
XX
PS   Example 7; Page 53; 120pp; English.
XX
CC   AAV70009 to AAV70024 represent antisense oligonucleotides which are
CC   specifically hybridisable with a region of a nucleic acid encoding mouse
CC   c-Fos protein. The antisense compound regulates the expression of the c-
CC   Fos protein. The present invention also describes antisense
CC   oligonucleotides which regulate the c-Jun protein. The antisense
CC   oligonucleotides are used for the diagnosis and treatment of diseases or
CC   disorders associated with Activating Protein 1 expression, of which c-Fos
```

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CC   and c-Jun are subunits. The antisense oligonucleotides are used in
CC   compositions as c-Fos and/or c-Jun together with a carrier and a
CC   chemotherapeutic agent. They are used to regulate the expression of c-Fos
CC   or c-Jun in cells or tissues, preferably by inhibiting metastasis. They
CC   also regulate cell cycle expression and can be used to treat an animal
CC   with, or being prone to, a hyperproliferative disease
XX
SQ   Sequence 20 BP; 1 A; 7 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        632 CTGGATGCCGCGGGCCTGGC 651
              ||||||||||   |||| ||
Db          1 CTGGATGCCGGCTGCCTTGC 20


RESULT 4902
AAV57115/c
ID   AAV57115 standard; DNA; 20 BP.
XX
AC   AAV57115;
XX
DT   25-MAR-2003  (revised)
DT   21-DEC-1998  (first entry)
XX
DE   Human Notch3 mutant gene primer N7F.
XX
KW   Human; Notch3; transmembrane receptor; lateral inhibition; regulation;
KW   developmental cascade; neurogenic gene; mutant; neurological disorder;
KW   cerebral autosomal dominant arteriopathy; subcortical infarct; CADASIL;
KW   leukoencephalopathy; therapy; PCR; primer; amplification; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   FR2751986-A1.
XX
PD   06-FEB-1998.
XX
PF   16-APR-1997;   97FR-00004680.
XX
PR   01-AUG-1996;   96FR-00009733.
XX
PA   (INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
XX
PI   Tournier LE,  Joutel A,  Bousser MG,  Bach JF;
XX
DR   WPI; 1998-133138/13.
XX
PT   Human Notch3 nucleic acids - and methods for identifying pre-disposition
PT   to cerebral autosomal dominant arteriopathy with sub-cortical infarcts
PT   and leukoencephalopathy.
XX
PS   Example 3; Page 24; 45pp; French.
XX
CC   Primers AAV57066-V57162 are used to detect mutations in the human Notch3
CC   gene (AAV57001). Primers AAV57115-V57116 amplify a 249 bp fragment from
CC   the EGF27-28 domain sequences found in exon 20. Notch3 is a transmembrane
CC   receptor protein involved in lateral inhibition and regulating
CC   developmental cascades of neurogenic genes. Mutated Notch3 proteins are
CC   thought to be involved in neurological disorders, especially of the
CC   cerebral autosomal dominant arteriopathy with subcortical infarcts and
CC   leukoencephalopathy (CADASIL) type. Blocking expression of a mutated
CC   Notch3 gene or by substitution therapy with non-mutated Notch3 gene or
CC   protein can be used to treat CADASIL or related disorders. (Updated on 25
CC   -MAR-2003 to correct PI field.)
XX
SQ   Sequence 20 BP; 1 A; 8 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1540 AGGAGAGTAGGGAAGGAACA 1559
              ||||||| |   |||||||
Db         20 AGGAGAGTGGCACAGGAACA 1


RESULT 4903
AAV42066
ID   AAV42066 standard; DNA; 20 BP.
XX
AC   AAV42066;
XX
DT   26-OCT-1998  (first entry)
XX
DE   Mouse alpha 3 connexin wild-type gene 3' PCR primer.
XX
KW   Alpha 3 connexin; A3C gene; mouse; lens; crystallin; cataract;
KW   knockout animal; PCR; primer; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   WO9830677-A1.
XX
PD   16-JUL-1998.
XX
PF   09-JAN-1998;   98WO-US000340.
XX
PR   10-JAN-1997;   97US-0034737P.
PR   15-MAY-1997;   97US-0046518P.
XX
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Gilula NB,  Gong X,  Kumar NM;
XX
DR   WPI; 1998-413684/35.
XX
PT   Disrupted alpha3 connexin genes - used to produce transgenic animals,
PT   useful for the study, prevention and treatment of cataracts.
XX
PS   Example 1; Page 30; 73pp; English.
XX
CC   3 Primers were used to examine wild-type or mutant alleles of the alpha 3
CC   connexin gene (see AAV32687) in embryonic stem (ES) cells of putative
CC   alpha 3 connexin gene knockout mice. The 5' primer (see AAV42065) was
CC   used with a 3' primer (AAV42066) for detecting the wild-type allele or
CC   with a 3' primer (see AAV42067) from the lacZ gene sequence to detect the
CC   alpha 3 gene disrupted allele. The absence of functional alpha 3 connexin
CC   protein (see AAW49009) in the knockout mice leads to age-related cataract
CC   formation. Such animals, or isolated lenses cultured in vitro, can be
CC   used in methods to identify compounds that affect cataract growth
XX
SQ   Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1114 CTTTGCCTATGTCTGTGAAG 1133
              ||||||| ||| ||||  ||
Db          1 CTTTGCCGATGACTGTAGAG 20


RESULT 4904
AAV79995
ID   AAV79995 standard; DNA; 20 BP.
XX
AC   AAV79995;
XX
DT   24-FEB-1999  (first entry)
XX
DE   BMP-IA DNA amplifying primer.
```

XX
KW Transgenic; osteogenic; core binding factor; CBFA1/PEBP2-alpha-A;
KW polyoma enhancer binding protein; runt; osteoblast; variant; BMP;
KW PCR primer; ss.
XX
OS Synthetic.
XX
PN JP10309148-A.
XX
PD 24-NOV-1998.
XX
PF 11-SEP-1997; 97JP-00247346.
XX
PR 10-MAR-1997; 97JP-00074453.
XX
PA (KISH/) KISHIMOTO C.
XX
DR WPI; 1999-063649/06.
XX
PT Transgenic animal with no osteogenic property - has introduced variation
PT in gene encoding core binding factor/polyoma enhancer binding protein.
XX
PS Example 10; Page 7; 19pp; Japanese.
XX
CC The invention provides a transgenic animal devoid of osteogenic property.
CC The transgenic animal has an introduced variation in a gene encoding for
CC core binding factor/polyoma enhancer binding protein (CBFA1/PEBP2-alpha -
CC A), particularly in runt region DNA, especially prepared by introduction
CC of a variation devoid of at least a part of gene encoding CBFA1/PEBP2-
CC alpha-A, leading to a disturbance in differentiation and maturation of
CC osteoblast cells. The transgenic animal can be prepared by introducing a
CC variant gene encoding for CBFA1/PEBP2-alpha-A. The animal can be used to
CC elucidate the in vivo mechanism of CBFA1/PEBP2-alpha-A. Sequences
CC AAV79975 to AAV80010 represent PCR primers used during the course of the
CC invention
XX
SQ Sequence 20 BP; 2 A; 5 C; 5 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1112 GACTTTGCCTATGTCTGTGA 1131
|| |||| ||| |||||||
Db 1 GGCCTTGCTTATCTCTGTGA 20

RESULT 4905
AAZ37685/c
ID AAZ37685 standard; DNA; 20 BP.
XX
AC AAZ37685;
XX
DT 07-JAN-2000 (first entry)
XX
DE Human mdm2 phosphorothioate oligodeoxynucleotide #215.
XX
KW Human mdm2 gene; proliferation; tumour; phosphorothioate; p53; cancer;
KW antisense; modulation; oligonucleotide; expression; inhibition;
KW hyperproliferation; blood cancer; brain cancer; breast cancer;
KW lung cancer; soft tissue cancer; psoriasis; fibrosis; atherosclerosis;
KW restenosis; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9949065-A1.
XX
PD 30-SEP-1999.
XX
PF 26-MAR-1999; 99WO-US006702.
XX
PR 26-MAR-1998; 98US-00048810.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Miraglia LJ, Nero P, Graham MJ, Monia BP, Cowsert LM;
XX
DR WPI; 1999-610754/52.
XX
PT New antisense compounds used to treat eg. hyperproliferative conditions.
XX
PS Example 9; Page 53; 157pp; English.
XX
CC AAZ37473-Z37738 represent human mdm2 phosphorothioate oligonucleotides.
CC AAZ37471, AAZ37472, AAZ37739, AAZ37740 and AAZ37741 are used in the
CC exemplification of the present invention. The present invention describes
CC novel nucleotide antisense compounds, targetted to the 5' untranslated,
CC translation termination codon, or 3' untranslated region of a nucleic
CC acid encoding human mdm2, that modulates expression of human mdm2. The
CC oligonucleotides mediate their effect by antisense inhibition of
CC hyperproliferative gene expression. The antisense compound is used to
CC treat an animal having a disease or condition associated with mdm2,
CC particularly a hyperproliferative condition, more particularly cancer,
CC especially of the blood, brain, breast, lung or soft tissue, or
CC psoriasis, fibrosis, atherosclerosis or restenosis
XX
SQ Sequence 20 BP; 8 A; 1 C; 3 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2520 TTTATTCATATATATACAGG 2539
|||||||| |||||| | |
Db 20 TTTATTCACATATATCAAAG 1

RESULT 4906
AAX21637/c
ID AAX21637 standard; DNA; 20 BP.
XX
AC AAX21637;
XX
DT 14-MAY-1999 (first entry)
XX
DE Human N-ras specific antisense oligo ISIS #14679.
XX
KW Human; N-ras; inhibition; pharmaceutical; modulation; cancer; oncogene;
KW diagnostic; therapeutic; tumour; antisense; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9902732-A1.
XX
PD 21-JAN-1999.
XX
PF 06-JUL-1998; 98WO-US013966.
XX
PR 08-JUL-1997; 97US-00889296.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Cowsert LM, Manoharan M;
XX
DR WPI; 1999-120932/10.
XX
PT New oligonucleotide targetting human N-ras nucleic acid - is capable of
PT inhibiting human N-ras expression, useful for preventing or treating
PT conditions arising from the activation of a human N-ras oncogene.
XX
PS Disclosure; Page 40; 97pp; English.
XX
CC The invention relates to oligonucleotides, which target a nucleic acid
CC encoding human N-ras, and are capable of inhibiting human N-ras

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CC   expression. The antisense oligonucleotides form a pharmaceutical
CC   composition, which is useful for modulating the expression of human N-
CC   ras, inhibiting the proliferation of cancer cells, and preventing or
CC   treating conditions arising from the activation of a human N-ras
CC   oncogene. The oligonucleotides are also useful in diagnostics,
CC   therapeutics, and as research reagents and kits. The oligonucleotides
CC   enable the specific modulation of activated human N-ras expression, which
CC   is associated with tumour formation. Sequences AAX21634-654 represent
CC   antisense oligonucleotides targeted to human N-ras
XX
SQ   Sequence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         69 GACGCCTGGTCACCGTGACC 88
              | |||||||| || ||| ||
Db         20 GCCGCCTGGTTACTGTGTCC 1


RESULT 4907
AAX57000/c
ID   AAX57000 standard; DNA; 20 BP.
XX
AC   AAX57000;
XX
DT   16-JUL-1999  (first entry)
XX
DE   Ras gene modulating liposomal entrapped oligonucleotide primer 44.
XX
KW   Ras gene; modulator; liposome; primer; antisense; anticancer; inhibition;
KW   cell growth inhibitor; treatment; cancer; ras protein; ss.
XX
OS   Synthetic.
XX
PN   WO9922772-A1.
XX
PD   14-MAY-1999.
XX
PF   28-OCT-1998;   98WO-US022821.
XX
PR   31-OCT-1997;   97US-00961469.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Hardee GE,  Geary RS,  Levin A,  Templin MV,  Howard R,  Mehta RC;
XX
DR   WPI; 1999-313181/26.
XX
PT   Liposome-encapsulated oligonucleotides useful for treating or preventing
PT   cancers associated with ras gene activation.
XX
PS   Example 1; Page 115; 120pp; English.
XX
CC   This invention describes novel compositions comprising oligonucleotides
CC   (AAX56957-X57017), entrapped within liposomes, that hybridize
CC   specifically to a target DNA or mRNA which encodes a mutant or wild-type
CC   ras protein. The products of the invention have anticancer activity and
CC   specifically bring about the antisense inhibition of ras genes or mRNA.
CC   The products of the invention are used to modulate expression of a ras
CC   gene in cells, tissue, organs or organisms, particularly to inhibit cell
CC   growth and especially to treat or prevent cancers associated with
CC   activation of a ras gene. Encapsulating the oligonucleotide reduces the
CC   rate at which it is cleared from the blood when compared with non-
CC   encapsulated material, and the oligonucleotides become distributed to
CC   practically all parts of the body
XX
SQ   Sequence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         69 GACGCCTGGTCACCGTGACC 88
              | |||||||| || ||| ||
Db         20 GCCGCCTGGTTACTGTGTCC 1


RESULT 4908
AAZ31287/c
ID   AAZ31287 standard; DNA; 20 BP.
XX
AC   AAZ31287;
XX
DT   24-JAN-2000  (first entry)
XX
DE   CCR5 gene inhibiting antisense oligo AS(s)-44.
XX
KW   HIV cofactor inhibitor; HIV infection; CXCR4 gene; CCR5 gene;
KW   drug composition; antisense; ss.
XX
OS   Synthetic.
XX
PN   WO9951751-A1.
XX
PD   14-OCT-1999.
XX
PF   01-APR-1999;   99WO-JP001722.
XX
PR   02-APR-1998;   98JP-00125452.
XX
PA   (MARI-) MARINE BIO CO LTD.
XX
PI   Takaku H,  Yamamoto N,  Kimura T,  Takai K,  Wada A;
XX
DR   WPI; 1999-620207/53.
XX
PT   Antisense oligonucleotide-based HIV cofactor inhibitors, as drug
PT   compositions for treatment of HIV infection.
XX
PS   Claim 6; Page 16; 59pp; Japanese.
XX
CC   The invention provides HIV cofactor inhibitors that contain
CC   oligonucleotides with a base sequence complementary to the CXCR4 or CCR5
CC   genes. Such inhibitors can be formulated into drug compositions for
CC   prevention or treatment of HIV infection, with inhibition of expression
CC   of CXCR4 or/and CCR5 gene. Sequences AAZ31244-306 represent antisense
CC   oligonucleotides to the CCR5 gene
XX
SQ   Sequence 20 BP; 13 A; 2 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2149 GATTGATTTTTTTCTCCTTT 2168
              ||||| || ||||||| | |
Db         20 GATTGTTTATTTTCTCTTCT 1


RESULT 4909
AAZ31349
ID   AAZ31349 standard; DNA; 20 BP.
XX
AC   AAZ31349;
XX
DT   24-JAN-2000  (first entry)
XX
DE   CXCR4 gene inhibiting antisense oligo AS(s)-106.
XX
KW   HIV cofactor inhibitor; HIV infection; CXCR4 gene; CCR5 gene;
KW   drug composition; antisense; ss.
XX
OS   Synthetic.
XX
```

```
PN   WO9951751-A1.
XX
PD   14-OCT-1999.
XX
PF   01-APR-1999;   99WO-JP001722.
XX
PR   02-APR-1998;   98JP-00125452.
XX
PA   (MARI-) MARINE BIO CO LTD.
XX
PI   Takaku H,  Yamamoto N,  Kimura T,  Takai K,  Wada A;
XX
DR   WPI; 1999-620207/53.
XX
PT   Antisense oligonucleotide-based HIV cofactor inhibitors, as drug
PT   compositions for treatment of HIV infection.
XX
PS   Claim 6; Page 18; 59pp; Japanese.
XX
CC   The invention provides HIV cofactor inhibitors that contain
CC   oligonucleotides with a base sequence complementary to the CXCR4 or CCR5
CC   genes. Such inhibitors can be formulated into drug compositions for
CC   prevention or treatment of HIV infection, with inhibition of expression
CC   of CXCR4 or/and CCR5 gene. Sequences AAZ31307-362 represent antisense
CC   oligonucleotides to the CXCR4 gene
XX
SQ   Sequence 20 BP; 3 A; 8 C; 2 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              || | |||||||||| || |
Db          1 TTGTCTGAACCCCATCCTCT 20


RESULT 4910
AAX33699/c
ID   AAX33699 standard; DNA; 20 BP.
XX
AC   AAX33699;
XX
DT   25-JUN-1999  (first entry)
XX
DE   DNA tandem nucleotide repeat locus PCR primer SEQ ID NO 29.
XX
KW   DNA tandem nucleotide repeat locus; human; DTNR allele; genetic mapping;
KW   genetic identity detection; forensic identification; paternity testing;
KW   PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9914375-A2.
XX
PD   25-MAR-1999.
XX
PF   18-SEP-1998;   98WO-US019578.
XX
PR   19-SEP-1997;   97US-0059415P.
XX
PA   (GENE-) GENETRACE SYSTEMS INC.
XX
PI   Butler JM,  Li J,  Monforte J,  Becker CA;
XX
DR   WPI; 1999-229554/19.
XX
PT   Analysis of DNA tandem nucleotide repeat alleles by extending a target
PT   nucleic acid using primers and analysis by mass spectrometry.
XX
PS   Claim 99; Page 25; 136pp; English.
XX
CC   This sequence represents a PCR primer for a DNA tandem nucleotide repeat
CC   (DTNR) locus that can be used in the method of the invention. The method
CC   is for analysing DTNR alleles in a target nucleic acid, and comprises
CC   extending the target nucleic acid using primers complementary to
CC   sequences flanking the repeat and analysis by mass spectrometry. The
CC   products and methods can be used for genetic identity detection including
CC   forensic identification and paternity testing as well as genetic mapping.
CC   The use of mass spectrometry for characterising DTNRs provides for high
CC   speed of analysis (a few seconds per sample) and accurate direct mass
CC   measurements
XX
SQ   Sequence 20 BP; 1 A; 10 C; 1 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1542 GAGAGTAGGGAAGGAACAGG 1561
              | || || || |||||||||
Db         20 GGGAATAAGGGAGGAACAGG 1


RESULT 4911
AAX54534/c
ID   AAX54534 standard; DNA; 20 BP.
XX
AC   AAX54534;
XX
DT   05-JUL-1999  (first entry)
XX
DE   Tumour necrosis factor alpha antisense oligonucleotide.
XX
KW   Antisense oligonucleotide; multiple target; antisense treatment;
KW   impaired respiration; inflammation; lung disease;
KW   pulmonary vasoconstriction; inflammation; allergic rhinitis;
KW   acute asthma; allergy; asthma; impeded respiration;
KW   respiratory distress syndrome; pain; cystic fibrosis;
KW   pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW   chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW   colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW   hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW   prostate cancer; ss.
XX
OS   Synthetic.
XX
PN   WO9913886-A1.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US019419.
XX
PR   17-SEP-1997;   97US-0059160P.
PR   09-JUN-1998;   98US-00093972.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
DR   WPI; 1999-229400/19.
XX
PT   New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT   vascconstriction.
XX
PS   Disclosure; Page 57; 120pp; English.
XX
CC   The specification describes antisense oligonucleotides (AAX52869-X55271)
CC   directed against at least 2 mRNAs selected from target genes, coding and
CC   non-coding regions of RNAs corresponding to target genes, gene initiation
CC   codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
CC   -end and the juxta-section between coding and non-coding regions and all
CC   segments of RNAs encoding proteins associated with one or more diseases,
CC   conditions or mixtures. The antisense oligonucleotides may be derived
CC   from sequences AAX55272-74. These multiple target oligonucleotides
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CC   (specifically AAX55180-271) can be used for the antisense treatment of
CC   diseases and conditions. Typical diseases and conditions are those
CC   associated with impaired respiration and inflammation, including lung
CC   diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC   acute asthma, allergies, asthma, impeded respiration, respiratory
CC   distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC   pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC   disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC   colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC   hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC   well as all types of cancers which may metastasize or have metastasized
CC   to the lungs, including breast and prostate cancer
XX
SQ   Sequence 20 BP; 0 A; 9 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        478 CGGCCGCCAGAGCCAGGAGG 497
              ||||| ||||||  | ||||
Db         20 CGGCCCCCAGAGGGAAGAGG 1


RESULT 4912
AAX33260/c
ID   AAX33260 standard; DNA; 20 BP.
XX
AC   AAX33260;
XX
DT   30-JUN-1999  (first entry)
XX
DE   PEBP2 alpha A gene expression regulating DNA PCR primer SEQ ID NO:17.
XX
KW   PEBP2 alpha A gene; expression; regulation; bone disease; osteoporosis;
KW   PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9911787-A1.
XX
PD   11-MAR-1999.
XX
PF   02-SEP-1998;   98WO-JP003920.
XX
PR   02-SEP-1997;   97JP-00254250.
PR   15-OCT-1997;   97JP-00299407.
PR   08-APR-1998;   98JP-00114135.
XX
PA   (SUMU ) SUMITOMO PHARM CO LTD.
XX
PI   Harada H,  Fujiwara M,  Tagashira S,  Ogawa S,  Katsumata T;
PI   Nakatsuka M;
XX
DR   WPI; 1999-243621/20.
XX
PT   DNA regulating expression of PEBP2 alphaA gene to produce regulator
PT   protein, useful as promoter for prevention or/and treatment of bone
PT   diseases e.g. osteoporosis.
XX
PS   Example 2; Page 29; 118pp; Japanese.
XX
CC   The present invention describes DNA which participates in the regulation
CC   of expression of PEBP2 alpha A gene. The DNA produces a regulator protein
CC   with the activity of promoting bone formation and can serve as a promoter
CC   for prevention and treatment of bone diseases including osteoporosis. The
CC   present sequence represents a PCR primer used in an example from the
CC   present invention
XX
SQ   Sequence 20 BP; 4 A; 7 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        545 CACCTCTCCGGGCTGGAGGC 564
              || ||  |||||||| ||||
Db         20 CATCTTGCCGGGCTGCAGGC 1


RESULT 4913
AAZ01809
ID   AAZ01809 standard; DNA; 20 BP.
XX
AC   AAZ01809;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1473; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 3 A; 7 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        719 CTGTTGCTGCACGATCAGAC 738
              || |||||||||  || |||
Db          1 CTTTTGCTGCACATTCCGAC 20


RESULT 4914
AAZ04150
ID   AAZ04150 standard; DNA; 20 BP.
XX
```

```
AC   AAZ04150;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1665; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1560 GGACTGCAAAAATCCTTCTC 1579
              || || |||||| | |||||
Db          1 GGGCTTCAAAAAGCGTTCTC 20


RESULT 4915
AAZ05582
ID   AAZ05582 standard; DNA; 20 BP.
XX
AC   AAZ05582;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1782; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 7 A; 4 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1309 CTTGGAGACGAACATACAGA 1328
              | |||| |||| |||| |||
Db          1 CCTGGATACGAGCATAGAGA 20


RESULT 4916
AAZ06015
ID   AAZ06015 standard; DNA; 20 BP.
XX
AC   AAZ06015;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
```

PR 04-NOV-1998; 98US-0107077P.
XX
PA (GEST) GENSET.
XX
PI Griffais R;
XX
DR WPI; 1999-371125/31.
XX
PT Genome sequence of Chlamydia trachomatis.
XX
PS Disclosure; Page 1818; 1755pp; English.
XX
CC PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC be used to control growth of the microorganism. Chlamydia trachomatis is
CC responsible for a large number of diseases, e.g. eye diseases such as
CC conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC conjunctivitis; genital diseases such as nongonococcal uretritis,
CC epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC The polypeptides of the invention may be of use in treating these
CC diseases
XX
SQ Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1560 GGACTGCAAAAATCCTTCTC 1579
|| || |||||| | |||||
Db 1 GGGCTTCAAAAAGCGTTCTC 20

RESULT 4917
AAZ03352
ID AAZ03352 standard; DNA; 20 BP.
XX
AC AAZ03352;
XX
DT 07-OCT-1999 (first entry)
XX
DE PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS Synthetic.
OS Chlamydia trachomatis.
XX
PN WO9928475-A2.
XX
PD 10-JUN-1999.
XX
PF 27-NOV-1998; 98WO-IB001939.
XX
PR 28-NOV-1997; 97FR-00015041.
PR 17-DEC-1997; 97FR-00016034.
PR 04-NOV-1998; 98US-0107077P.
XX
PA (GEST) GENSET.
XX
PI Griffais R;
XX
DR WPI; 1999-371125/31.
XX
PT Genome sequence of Chlamydia trachomatis.
XX
PS Disclosure; Page 1599; 1755pp; English.
XX
CC PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC be used to control growth of the microorganism. Chlamydia trachomatis is
CC responsible for a large number of diseases, e.g. eye diseases such as
CC conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC conjunctivitis; genital diseases such as nongonococcal uretritis,
CC epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC The polypeptides of the invention may be of use in treating these
CC diseases
XX
SQ Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1374 AGGCCATCTGTGCCGCGGTG 1393
|||| ||||||| || |||
Db 1 AGGCTATCTGTGAAGCTGTG 20

RESULT 4918
AAZ05579
ID AAZ05579 standard; DNA; 20 BP.
XX
AC AAZ05579;
XX
DT 07-OCT-1999 (first entry)
XX
DE PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS Synthetic.
OS Chlamydia trachomatis.
XX
PN WO9928475-A2.
XX
PD 10-JUN-1999.
XX
PF 27-NOV-1998; 98WO-IB001939.
XX
PR 28-NOV-1997; 97FR-00015041.
PR 17-DEC-1997; 97FR-00016034.
PR 04-NOV-1998; 98US-0107077P.
XX
PA (GEST) GENSET.
XX
PI Griffais R;
XX
DR WPI; 1999-371125/31.
XX
PT Genome sequence of Chlamydia trachomatis.
XX
PS Disclosure; Page 1782; 1755pp; English.
XX
CC PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC be used to control growth of the microorganism. Chlamydia trachomatis is
CC responsible for a large number of diseases, e.g. eye diseases such as
CC conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC conjunctivitis; genital diseases such as nongonococcal uretritis,
CC epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.

```
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 7 A; 4 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1309 CTTGGAGACGAACATACAGA 1328
              | |||| |||| |||| |||
Db          1 CCTGGATACGAGCATAGAGA 20


RESULT 4919
AAZ02019
ID   AAZ02019 standard; DNA; 20 BP.
XX
AC   AAZ02019;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB001939.
XX
PR   28-NOV-1997;   97FR-00015041.
PR   17-DEC-1997;   97FR-00016034.
PR   04-NOV-1998;   98US-0107077P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis.
XX
PS   Disclosure; Page 1490; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences can also
CC   be used to control growth of the microorganism. Chlamydia trachomatis is
CC   responsible for a large number of diseases, e.g. eye diseases such as
CC   conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
CC   conjunctivitis; genital diseases such as nongonococcal uretritis,
CC   epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis;
CC   pneumopathy in breast feeding infants; and venereal lymphogranulomatosis.
CC   The polypeptides of the invention may be of use in treating these
CC   diseases
XX
SQ   Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         81 CCGTGACCCCGATTTTGGAT 100
              || |||||| | ||| ||||
Db          1 CCATGACCCAGTTTTCGGAT 20


RESULT 4920
AAX76250/c
ID   AAX76250 standard; DNA; 20 BP.
XX
AC   AAX76250;
XX
DT   06-AUG-1999  (first entry)
XX
DE   Peritoneal macrophage total RNA PCR reverse primer.
XX
KW   Nitric oxide synthase inhibitor; iNOS; proinflammatory cytokine;
KW   X-linked adrenoleukodystrophy; multiple sclerosis; septic shock;
KW   Alzheimer's disease; cytokine induction; myelinolytic inflammation;
KW   stroke; neurodegenerative disease; demyelinating condition; dementia;
KW   AIDS-related neurodegeneration; experimental allergic encephalopathy;
KW   brain trauma; inflammatory demyelinating disease; cell apoptosis;
KW   PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9926657-A1.
XX
PD   03-JUN-1999.
XX
PF   25-NOV-1998;   98WO-US025360.
XX
PR   25-NOV-1997;   97US-0066839P.
XX
PA   (UYSC-) UNIV SOUTH CAROLINA.
XX
PI   Singh I;
XX
DR   WPI; 1999-357739/30.
XX
PT   Suppression of inducible nitric oxide synthase used to, e.g. treat X-
PT   linked adrenoleukodystrophy.
XX
PS   Example 1; Page 74; 209pp; English.
XX
CC   The present invention describes a method for suppressing the induction of
CC   inducible nitric oxide synthase (iNOS) in a cell by contacting the cell
CC   with at least one induction suppressor of iNOS or a proinflammatory
CC   cytokine. The method can be used for treating disorders such as
CC   inflammatory disease, e.g. X-linked adrenoleukodystrophy (X-ALD),
CC   Alzheimer's disease, myelinolytic inflammation, stroke, neurodegenerative
CC   diseases, demyelinating conditions e.g. multiple sclerosis, dementia
CC   including AIDS-related neurodegeneration, experimental allergic
CC   encephalopathy, brain trauma, an inflammatory demyelinating disease,
CC   septic shock or cell apoptosis. The present sequence represents a PCR
CC   primer used in an example from the present invention for the inhibition
CC   of iNOS and cytokines
XX
SQ   Sequence 20 BP; 3 A; 6 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1482 ACAAAACCCTGGAGAAAATG 1501
              |||| | ||||||| || ||
Db         20 ACAACATCCTGGAGGAAGTG 1


RESULT 4921
AAX58467
ID   AAX58467 standard; DNA; 20 BP.
XX
AC   AAX58467;
XX
DT   02-AUG-1999  (first entry)
```

```
XX
DE   PCR primer P38-S2513 used for dnaX gene amplification.
XX
KW   DnaX; DNA polymerase III; holoenzyme; thermostable; thermophilic;
KW   amplification; PCR; primer; ss.
XX
OS   Synthetic.
OS   Thermus thermophilus.
XX
PN   WO9913060-A1.
XX
PD   18-MAR-1999.
XX
PF   11-SEP-1998;   98WO-US018946.
XX
PR   12-SEP-1997;   97US-00928213.
PR   11-SEP-1998;   98US-00928213.
XX
PA   (ENZY-) ENZYCO INC.
XX
PI   Mchenry CS,  Seville M,  Cull MG,  Chen JY,  Kery V;
XX
DR   WPI; 1999-243724/20.
XX
PT   New isolated thermophilic polymerase holoenzyme.
XX
PS   Claim 70; Page 142; 211pp; English.
XX
CC   PCR primer P38-S2513 was used with primer P38-A3183 (see AAX58468) in the
CC   amplification of a DNA segment corresponding to the C-terminal end of the
CC   Thermus thermophilus dnaX gene (see AAX58429). The PCR product was used
CC   in the construction of plasmids that overexpress T. thermophilus tau
CC   fused to a C-terminal peptide that contains hexahistidine and a
CC   biotinylation site. Soluble dnaX was overexpressed in Escherichia coli
CC   host cells. The invention provides DNA polymerase III holoenzyme subunits
CC   of T. thermophilus, including DnaX. It also provides vectors, host cells,
CC   fusion proteins, antibodies, primers, probes and other reagents useful
CC   for identifying DNA polymerase III molecules. A claimed amplification
CC   method utilises a DNA polymerase, an adjunct comprising at least a
CC   subunit of a thermostable polymerase selected from DnaX, DnaE, DnaQ, DnaN
CC   and DnaA, and at least 2 primers capable of hybridising to nucleic acid
CC   encoding a polymerase subunit
XX
SQ   Sequence 20 BP; 3 A; 10 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        420 CCGCCATCAACCCCCTGCAC 439
              ||||||| | | ||||| ||
Db          1 CCGCCATGACCGCCCTGGAC 20


RESULT 4922
AAZ18677/c
ID   AAZ18677 standard; DNA; 20 BP.
XX
AC   AAZ18677;
XX
DT   19-OCT-1999  (first entry)
XX
DE   ASTH1 gene intron/exon junction sequence.
XX
KW   ASTH1; asthma; human; chromosome 11p; ASTH1I; ASTHIJ; genetic locus;
KW   therapeutic; immunogen; polymorphism; junction; ss.
XX
OS   Homo sapiens.
XX
PN   WO9937809-A1.
XX
PD   29-JUL-1999.
XX
PF   21-JAN-1998;   98WO-US001260.
XX
PR   21-JAN-1998;   98WO-US001260.
XX
PA   (AXYS-) AXYS PHARM INC.
XX
PI   Brooks-Wilson AR,  Buckler A,  Cardon L,  Carey AH,  Galvin M;
PI   Miller A,  North M;
XX
DR   WPI; 1999-479058/40.
XX
PT   Mammalian asthma related genes, useful for diagnosis of a predisposition
PT   to development of asthma.
XX
PS   Disclosure; Page 58; 195pp; English.
XX
CC   The invention identifies a genetic locus ASTH1, associated with asthma,
CC   mapped to human chromosome 11p. ASTH1I and ASTHIJ are genes present
CC   within the locus, located close to each other on human chromosome 11p,
CC   and have similar patterns of expression, and common sequence motifs. The
CC   ASTH1 genes and fragments, encoded protein, genomic regulatory regions
CC   and anti-ASTH1 antibodies are useful in the identification of individuals
CC   predisposed to development of asthma, and for the modulation of gene
CC   activity in vivo for prophylactic and therapeutic purposes. The ASTH1
CC   protein is useful as an immunogen to raise specific antibodies, in drug
CC   screening for compositions that mimic or modulate ASTH1 activity or
CC   expression, including altered forms of ASTH1 protein, and as a
CC   therapeutic. Sequences AAZ18643-Z18685 intron/exon junction sequences of
CC   ASTH1I and ASTH1J genes
XX
SQ   Sequence 20 BP; 8 A; 4 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1619 AGTTTGTTACCTACCTTACT 1638
              |||| |||||||||  | ||
Db         20 AGTTAGTTACCTACTGTGCT 1


RESULT 4923
AAX93060/c
ID   AAX93060 standard; DNA; 20 BP.
XX
AC   AAX93060;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
```

```
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1560; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 6 A; 7 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1114 CTTTGCCTATGTCTGTGAAG 1133
              ||||||||||    ||||||
Db         20 CTTTGCCTATAGGGGTGAAG 1


RESULT 4924
AAX92277
ID   AAX92277 standard; DNA; 20 BP.
XX
AC   AAX92277;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1499; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 7 A; 4 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        903 AAGTACAGAGGCGACTGTCC 922
              ||| || ||||||| | |||
Db          1 AAGAACGGAGGCGATTATCC 20


RESULT 4925
AAX95057/c
ID   AAX95057 standard; DNA; 20 BP.
XX
AC   AAX95057;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1718; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 7 A; 6 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1114 CTTTGCCTATGTCTGTGAAG 1133
              |||| |||||||  || | ||
Db         20 CTTTCCCTATGTATGGGGAG 1


RESULT 4926
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```
AAX94674/c
ID   AAX94674 standard; DNA; 20 BP.
XX
AC   AAX94674;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW   neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydophila pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1688; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1310 TTGGAGACGAACATACAGAA 1329
              |||  | ||||| |||||||
Db         20 TTGCTGCCGAACCTACAGAA 1


RESULT 4927
AAZ28022
ID   AAZ28022 standard; DNA; 20 BP.
XX
AC   AAZ28022;
XX
DT   31-JAN-2000  (first entry)
XX
DE   Seq ID No: 8 of WO9953056.
XX
KW   Glycoprotein; adipocyte; differentiation; heparin; sugar; human;
KW   fibroblast; medicinal composition; obesity; immunological diagnosis; ss.
XX
OS   Synthetic.
XX
PN   WO9953056-A1.
XX
PD   21-OCT-1999.
XX
PF   09-APR-1999;   99WO-JP001906.
XX
PR   10-APR-1998;   98JP-00099741.
PR   28-AUG-1998;   98JP-00243355.
XX
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
XX
PI   Goto M,  Tomoyasu A,  Yano K,  Kobayashi F,  Nakagawa N,  Yasuda H;
PI   Yamaguchi K,  Kinosaki M,  Mochizuki S,  Nakakarumai T,  Morinaga T;
PI   Tsuda E,  Higashio K;
XX
DR   WPI; 1999-620426/53.
XX
PT   Novel glycoprotein as adipogenesis inhibitory factor, capable of
PT   suppressing differentiation and/or maturation of adipocytes and useful
PT   for preventing or treating obesity.
XX
PS   Disclosure; Page 43; 52pp; Japanese.
XX
CC   The invention provides a glycoprotein with a molecular weight of 45 kDa
CC   (under non-reducing conditions), or 28 kDa and/or 23 kDa (under reducing
CC   conditions by SDS-PAGE), that suppresses the differentiation and/or
CC   maturation of adipocytes, has an affinity for heparin and contains
CC   sugars. The glycoprotein can be produced by culturing human fibroblasts,
CC   and purifying the culture liquor on an ion-exchange column, affinity
CC   column and reversed-phase column chromatography. The glycoprotein can be
CC   used to formulate medicinal compositions for the prevention or treatment
CC   of obesity, and as an antigen for establishing immunological diagnosis
XX
SQ   Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        712 CCAGCACCTGTTGCTGCACG 731
              | || || || |||||||||
Db          1 CAAGGACTTGCTGCTGCACG 20


RESULT 4928
AAZ47566/c
ID   AAZ47566 standard; DNA; 20 BP.
XX
AC   AAZ47566;
XX
DT   23-MAR-2000  (first entry)
XX
DE   Antisense oligonucleotide 21 targeted to human MDR1 P-glycoprotein.
XX
KW   Multidrug resistance gene; MDR1; human; hyperproliferative disease;
KW   cancer; autoradiography; phosphorothioate; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /note= "Phosphorothioate internucleoside linkage"
XX
PN   US6001991-A.
XX
PD   14-DEC-1999.
XX
PF   30-SEP-1997;   97US-00940250.
XX
PR   04-OCT-1996;   96US-00731199.
XX
```

```
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Manoharan M,  Dean NM;
XX
DR   WPI; 2000-061907/05.
XX
PT   Antisense oligonucleotide specific for multidrug resistance P-
PT   glycoprotein is useful for treating hyperproliferative diseases and
PT   disorders e.g. cancer.
XX
PS   Claim 1; Col 13; 24pp; English.
XX
CC   This sequence is an antisense oligonucleotide that specifically
CC   hybridises to nucleic acids encoding a human multidrug resistance P-
CC   glycoprotein (MDR1). The oligonucleotide inhibits expression of the P-
CC   glycoprotein, which functions as an ATP driven efflux pump. The antisense
CC   oligonucleotides of the invention have a phosphorothioate modified
CC   backbone, and may contain residues with 2' modifications selected from 2'
CC   -methoxyethoxy, 2'-fluoro, 2'-O-fluoro or 2'-propyl. Some antisense
CC   oligonucleotides have cholesterol bound at the 3' end which ensures
CC   resistance to 3' exonucleases, enhances cellular uptake, and leaves the
CC   5'terminus available for conjugation of additional functional groups. The
CC   oligonucleotides may be used in research, diagnosis or as therapeutic
CC   agents for MDR-associated hyperproliferation of cells. Inhibiting MDR1
CC   gene expression can be used to treat hyperproliferative diseases and
CC   disorders e.g. cancer, in conjunction with chemotherapeutic reagents to
CC   prevent or modulate the development of multidrug resistance during the
CC   treatment. The oligonucleotides can also be used to resensitize
CC   hyperproliferative MDR cells in an animal previously exposed to
CC   chemotherapeutic agents. Radiolabelled oligonucleotides can be used to
CC   perform autoradiography of tissues to determine localization,
CC   distribution and quantitation of MDR P-glycoproteins for research or
CC   diagnostic purposes
XX
SQ   Sequence 20 BP; 7 A; 0 C; 3 G; 10 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2756 TGTATAATAAAAGTATTCTT 2775
              | ||||||||||  ||  |||
Db         20 TCTATAATAAAACTAAACTT 1


RESULT 4929
AAZ48056
ID   AAZ48056 standard; DNA; 20 BP.
XX
AC   AAZ48056;
XX
DT   08-MAR-2000  (first entry)
XX
DE   Human IGF-II antisense oligonucleotide GTI4017.
XX
KW   Human; IGF-II; insulin-like growth factor II; cell growth modulation;
KW   tumour; inhibition; antisense oligonucleotide; phosphorothioate;
KW   metastasis; antitumour; antiproliferative; angiogenesis; apoptosis;
KW   tumour cell migration; proliferative disease; atherosclerosis; psoriasis;
KW   ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base
FT                   /note= "phosphorothioate linkages"
XX
PN   WO9955854-A2.
XX
PD   04-NOV-1999.
XX
PF   23-APR-1999;   99WO-CA000323.
XX
PR   23-APR-1998;   98US-0082791P.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA,  Young AH,  Lee YS;
XX
DR   WPI; 2000-062027/05.
XX
PT   Antisense oligonucleotides against mRNA of insulin-like growth factor II,
PT   for treating tumors and other proliferative diseases.
XX
PS   Claim 5; Page 19; 72pp; English.
XX
CC   AAZ48041 to AAZ48070 represent specifically claimed antisense
CC   oligonucleotides (I) complementary to the mRNA of human insulin-like
CC   growth factor II (IGF-II). The present invention also describes a method
CC   for inhibiting growth or metastasis of mammalian tumours by administering
CC   (I). (I) have antitumour and antiproliferative activity, and inhibits:
CC   (i) the autocrine and paracrine functions of IGF-II which promote tumour-
CC   induced angiogenesis and tumour cell migration; and (ii) autocrine growth
CC   of tumour cells, possibly including induction of apoptosis. (I) may also
CC   function as ribozymes. (I) are used for inhibiting growth and metastasis
CC   of mammalian tumours, also: (i) for treatment of other proliferative
CC   diseases, e.g. atherosclerosis and psoriasis; (ii) when labeled, as
CC   probes for detecting IGF-II mRNA; and (iii) as molecular weight markers.
CC   (I) that bind to the 5'-untranslated region of the foetal transcript (the
CC   form present in tumour cells) should not affect the adult transcript.
CC   They are effective against drug-resistant tumours
XX
SQ   Sequence 20 BP; 2 A; 12 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       251 GTCCCCCACCTCTCCTCCGC 270
             |||| ||| ||| || ||||
Db         1 GTCCACCAGCTCCCCGCCGC 20


RESULT 4930
AAA60405/c
ID   AAA60405 standard; DNA; 20 BP.
XX
AC   AAA60405;
XX
DT   06-OCT-2000  (first entry)
XX
DE   Human telomerase antisense oligonucleotide hEST24 SEQ ID NO:6.
XX
KW   Human; telomerase; antisense oligonucleotide; inhibition; hEST2;
KW   malignant tumour; cytostatic; telomerase inhibitor; liver cancer;
KW   lung cancer; breast cancer; brain glioma; ss.
XX
OS   Homo sapiens.
XX
PN   WO200027858-A1.
XX
PD   18-MAY-2000.
XX
PF   29-OCT-1999;   99WO-CN000173.
XX
PR   09-NOV-1998;   98CN-00124461.
XX
PA   (RADI-) INST RADIATION MEDICINE ACAD MILITARY ME.
XX
PI   Wang S,  Zheng X,  Zhu B,  Xing R,  Guan W,  Sun Z;
XX
DR   WPI; 2000-376478/32.
XX
```

PT Antisense oligonucleotides which inhibit human telomerase activity useful
PT in the inhibition of malignant tumor growth, used to treat e.g. liver,
PT lung and breast cancers and brain glioma.
XX
PS Claim 2; Page 4; 32pp; Chinese.
XX
CC AAA60400 to AAA60428 represent specifically claimed antisense
CC oligonucleotides (I) complementary to a part of the gene encoding a
CC protein subunit hEST2 of human telomerase that has reverse transcriptase
CC activity, or its transcriptional mRNA. Also described are: (1) a
CC pharmaceutical composition comprising (I); (2) a reagent kit for
CC detecting telomerase hEST2 RNA component or DNA encoding telomerase hEST2
CC containing (I); and (3) preparing a drug for treating a tumour,
CC comprising the use of (I). The antisense oligonucleotides can inhibit
CC telomerase activity, applicable in inhibiting the growth of malignant
CC tumours e.g. for treatment of liver, lung and breast cancers and brain
CC glioma
XX
SQ Sequence 20 BP; 1 A; 6 C; 11 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 626 CACGCCCTGGATGCCGCGGG 645
||| ||| |||||||| |
Db 20 CACCCCCGCGATGCCGCGCG 1

RESULT 4931
AAA33978/c
ID AAA33978 standard; DNA; 20 BP.
XX
AC AAA33978;
XX
DT 28-JUL-2000 (first entry)
XX
DE Low adenosine antisense oligonucleotide SEQ ID NO:1667.
XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothioate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS Homo sapiens.
XX
PN WO200009525-A2.
XX
PD 24-FEB-2000.
XX
PF 03-AUG-1999; 99WO-US017712.
XX
PR 03-AUG-1998; 98US-0095212P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 2000-205971/18.
XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
PT vasoconstruction, inflammation, allergies, asthma, hypertension,
PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT cancers.
XX
PS Claim 18; Page 472; 1343pp; English.
XX
CC The present invention describes a new composition comprising an antisense
CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impeded respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing
XX
SQ Sequence 20 BP; 0 A; 9 C; 6 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 478 CGGCCGCCAGAGCCAGGAGG 497
||||| |||||| | ||||
Db 20 CGGCCCCCAGAGGGAAGAGG 1

RESULT 4932
AAZ46619
ID AAZ46619 standard; DNA; 20 BP.
XX
AC AAZ46619;
XX
DT 13-MAR-2000 (first entry)
XX
DE Reverse primer specific for human CACNA1F exon 13.
XX
KW Retinal calcium channel; RCC gene; alpha1F-subunit; retinal disorder;
KW myopia; nystagmus; strabismus; calcium-regulated development pathway;
KW eye disorder; human; CACNA1F; CSNB; mutational analysis; PCR primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9963078-A2.
XX
PD 09-DEC-1999.
XX
PF 02-JUN-1999; 99WO-CA000514.
XX
PR 02-JUN-1998; 98US-0087635P.
XX
PA (UYTE-) UNIV TECHNOLOGIES INT INC.
XX
PI Bech-Hansen T, Naylor MJ;
XX
DR WPI; 2000-097327/08.
XX
PT New isolated mammalian retinal calcium channel gene, used to develop
PT products for the diagnosis and treatment of incomplete congenital
PT stationary night blindness and related disorders.
XX
PS Disclosure; Fig 6; 55pp; English.
XX
CC The invention provides a DNA molecule comprising a sequence of

CC nucleotides encoding an alpha1F-subunit of a mammalian retinal calcium
CC channel (RCC), including a human alpha1F-subunit, a murine alpha1F-
CC subunit and orthologs of the human and murine alpha1F-subunits. The RCC
CC gene may be used to develop products for diagnostic tests, for incomplete
CC CSMB and risk assessment in affected families. The RCC gene can provide
CC information as to the basic defect in this retinal conditions, which
CC could lead to effective methods for treatment or cure of the disorder. As
CC the associated features of myopia, nystagmus and strabismus frequently
CC observed in patients with incomplete CSNB may be caused by calcium-
CC regulated development pathways, identification of the RCC gene may help
CC to elucidate the molecular details of eye development and which may lead
CC to treatment for related eye disorders or diseases. Sequences AAZ46563-
CC 650 represent human CACNA1F (alpha1F-subunit of RCC gene) exon-specific
CC PCR primers, used for mutational analysis in humans
XX
SQ Sequence 20 BP; 7 A; 1 C; 10 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2546 AGAATTAAGAGGATGCTGGG 2565
|||| || |||| ||||||
Db 1 AGAAGGAATAGGAGGCTGGG 20

RESULT 4933
AAA46764
ID AAA46764 standard; DNA; 20 BP.
XX
AC AAA46764;
XX
DT 25-SEP-2000 (first entry)
XX
DE Oligonucleotide sequence PADRCR5'.
XX
KW Reporter gene; pathogen detection; tuberculosis; leprosy;
KW human immune deficiency virus; HIV; hepatitis B virus;
KW bacterial contamination; biological corrosion; industrial pipework;
KW cancer; microperoxidase 8 gene; ss.
XX
OS Synthetic.
XX
PN WO200034513-A1.
XX
PD 15-JUN-2000.
XX
PF 08-DEC-1999; 99WO-FR003061.
XX
PR 08-DEC-1998; 98FR-00015489.
XX
PA (PROT-) PROTEUS SA.
XX
PI Dautel S, Persillon C, Dupret D, Masson J, Lefevre F;
XX
DR WPI; 2000-423443/36.
XX
PT Novel method for detecting target substance, useful e.g. for detecting
PT point mutations, by labeling the target with a reporter gene and
PT expression control elements, then transcribing, translating and
PT detecting.
XX
PS Disclosure; Page 33; 60pp; French.
XX
CC The specification describes a method for the detection of a target
CC substance in a sample. The method comprises specifically labeling the
CC target substance with a reporter gene and with sequences required for the
CC its expression, transcribing and translating the reporter gene in vitro,
CC and detecting the reporter protein. The method is used for the diagnosis
CC (and monitoring) of e.g. pathogens (bacteria such as those that cause
CC tuberculosis or leprosy, or viruses such as human immune deficiency virus
CC (HIV) or hepatitis B), to detect bacterial contamination of foods, and
CC for studying microorganisms implicated in the biological corrosion of
CC industrial pipework and vessels. A particular application is the
CC detection of point mutations, e.g. those associated with genetic disease
CC or cancer. The present sequence is used in the course of the invention
XX
SQ Sequence 20 BP; 5 A; 7 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1343 TTCAGCCTGATTACCCACGG 1362
|||||| |||| ||||| |
Db 1 TTCAGCAGGATTCCCCACAG 20

RESULT 4934
AAA40976
ID AAA40976 standard; DNA; 20 BP.
XX
AC AAA40976;
XX
DT 16-AUG-2000 (first entry)
XX
DE Human TNFalpha antisense oligonucleotide ISIS# 100595.
XX
KW Antisense oligonucleotide; phosphorothioate; TNFalpha; cytokine; inhibit;
KW tumour necrosis factor alpha; inflammatory bowel disease; diabetes;
KW rheumatoid arthritis; infectious disease; multiple sclerosis; hepatitis;
KW pancreatitis; atopic dermatitis; allograft rejection; autoimmune disease;
KW inflammatory disease; ss.
XX
OS Synthetic.
XX
PN WO200020645-A1.
XX
PD 13-APR-2000.
XX
PF 05-OCT-1999; 99WO-US023205.
XX
PR 05-OCT-1998; 98US-00166186.
PR 18-MAY-1999; 99US-00313932.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Baker BF, Bennett CF, Butler MM, Shanahan WJ;
XX
DR WPI; 2000-303808/26.
XX
PT Oligonucleotide for treating diseases associated with human tumor
PT necrosis factor-alpha (TNF-alpha) such as, diabetes and rheumatoid
PT arthritis, comprises nucleotide sequence complementary to intron of
PT nucleic acid encoding TNF-alpha.
XX
PS Example 20; Page 95; 283pp; English.
XX
CC This sequence represents an antisense oligonucleotide sequence which
CC targets a region of the human tumour necrosis factor alpha (TNFalpha)
CC nucleotide sequence. TNFalpha is an important cytokine that plays a role
CC in host defence. It is produced mainly in macrophages and monocytes in
CC response to infection, invasion, injury or inflammation. Overexpression
CC of TNFalpha can result in disease states, particularly in infectious,
CC inflammatory and autoimmune diseases. The invention relates to antisense
CC oligonucleotides, such as that represented by the present sequence which
CC are capable of modulating the TNFalpha gene expression. The
CC oligonucleotides optionally have a phosphorothioate backbone, and may
CC also optionally contain at least one 2'-O-methoxyethyl modification. The
CC oligonucleotides are useful for modulating the expression of human
CC TNFalpha in cells and tissues, reducing a human cell inflammatory
CC response, reducing the blood glucose level in a human and treating a
CC human having a disease or condition associated with TNFalpha. Examples of
CC diseases associated with TNFalpha include diabetes, inflammatory bowel
CC disease, multiple sclerosis, pancreatitis, rheumatoid arthritis,
CC infectious disease, hepatitis, atopic dermatitis or allograft rejection.

CC The antisense oligonucleotides are also useful for modulating the
CC function of a selected nucleic acid sequence in adipose tissue
XX
SQ Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1453 CCCTGGAGACCAGAGTCCAG 1472
|||||| ||||| |||||
Db 1 CCCTGGTCTCCAGATTCCAG 20

RESULT 4935
AAA59816/c
ID AAA59816 standard; DNA; 20 BP.
XX
AC AAA59816;
XX
DT 06-OCT-2000 (first entry)
XX
DE Primer for RIP 140 nucleotide sequence amplification.
XX
KW Endocrine disruptor; dioxins; organic halocarbon; phenol; agrochemical;
KW phthalate esters; aromatic hydrocarbon; organotin compound; oestrogen;
KW mylex; toxaphene; aldicarb; kepones; kinase signal transduction;
KW nuclear receptor transcriptional coupling; gonad differentiation;
KW intermediate filament marker; cell cycle; growth; regulation; oncogene;
KW tumour suppressor; apoptosis; DNA damage response; cell adhesion;
KW motility; angiogenesis regulation; invasion regulation; growth factor;
KW cytokine; primer; ss.
XX
OS Synthetic.
XX
PN WO200026404-A1.
XX
PD 11-MAY-2000.
XX
PF 28-OCT-1999; 99WO-JP005964.
XX
PR 30-OCT-1998; 98JP-00310285.
XX
PA (TAKI) TAKARA SHUZO CO LTD.
XX
PI Kondo A, Sagawa H, Mineno J, Kimizuka F, Kato I;
XX
DR WPI; 2000-365642/31.
XX
PT mRNA from cells exposed to an endocrine disruptor is hybridized with a
PT DNA array of gene fragments for detection of genes whose expression is
PT altered by the endocrine disruptor.
XX
PS Example 3; Page 72; 81pp; Japanese.
XX
CC A method for detecting genes whose expression is altered by an endocrine
CC disruptor is new and comprises isolation of mRNA from cells, tissue or
CC organism which have come into contact with the endocrine disruptor, and
CC hybridising it with a DNA array containing immobilized gene fragments
CC from genes which may be affected by the endocrine disruptor. The results
CC of the hybridisation are then compared with a comparison sample to
CC establish which genes have altered expression. The method is used to
CC detect genes whose expression is altered by endocrine disruptors such as
CC dioxins, organic halocarbons, phenols, phthalate esters, aromatic
CC hydrocarbons, agrochemicals, organotin compounds, oestrogens, mylex,
CC toxaphene, aldicarb and kepones. The types of genes whose expression may
CC be altered by these disruptors include those involved in nuclear receptor
CC transcriptional coupling, kinase type signal transduction, gonad
CC differentiation, receptor type kinases, intermediate filament markers,
CC cell cycle and growth regulation, oncogenes and tumour suppression,
CC apoptosis, DNA damage response, repair and recombination, receptors, cell
CC fate and development regulators, cell adhesion, motility and invasion,
CC angiogenesis regulation, invasion regulation, cell-cell interaction, Rho
CC family small GTPase regulation and growth factors and cytokines.
CC Sequences AAA59772-A59833 represent primers used to amplify the
CC nucleotide sequences of genes which may be affected by an endocrine
CC disruptor
XX
SQ Sequence 20 BP; 2 A; 6 C; 3 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 895 AGTGGCTGAAGTACAGAGGC 914
| || |||||| | ||||||
Db 20 AATGACTGAAGCAAAGAGGC 1

RESULT 4936
AAA90438/c
ID AAA90438 standard; DNA; 20 BP.
XX
AC AAA90438;
XX
DT 10-JAN-2001 (first entry)
XX
DE Mouse GANP reverse RT-PCR primer.
XX
KW GANP; mouse; murine; kinase activity; protein phosphorylation;
KW signal transduction; abnormal B cell differentiation; antibody;
KW autoimmune disorder; reverse transcription-PCR; RT-PCR primer; ss.
XX
OS Mus sp.
XX
PN WO200050611-A1.
XX
PD 31-AUG-2000.
XX
PF 27-AUG-1999; 99WO-JP004634.
XX
PR 24-FEB-1999; 99JP-00047035.
XX
PA (SUME) SUMITOMO ELECTRIC IND CO.
XX
PI Sakaguchi N, Kuwahara K;
XX
DR WPI; 2000-549411/50.
XX
PT GANP proteins participating in signal conversion of abnormal B cell
PT differentiation in autoimmune state and having kinase activity, useful in
PT the study of autoimmune mechanisms.
XX
PS Example 1; Page 20; 91pp; Japanese.
XX
CC The invention relates to the mosue and human GANP proteins (AAB22942,
CC AAB22943). These proteins are 210 kD in size, have kinase activity and
CC participate in signal transduction during abnormal B cell
CC differentiation. The invention also encompasses nucleotides encoding GANP
CC proteins, variant GANP proteins, and antibodies against GANP proteins.
CC GANP proteins may be used in the study of mechanisms involved in
CC autoimmune disorders. Sequences AAA90437-A90438 represent reverse
CC transcription-PCR (RT-PCR) primers used in an exemplification of the
CC invention to isolate mouse GANP cDNA (AAA90435)
XX
SQ Sequence 20 BP; 5 A; 9 C; 2 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 999 TGCGGGAGAAGTTGGACAAG 1018
||| ||||| | |||||| |
Db 20 TGCTGGAGATGGTGGACATG 1

```
RESULT 4937
AAA99058
ID   AAA99058 standard; DNA; 20 BP.
XX
AC   AAA99058;
XX
DT   18-JAN-2001  (first entry)
XX
DE   Porcine virus activation protease PCR primer SEQ ID NO:15.
XX
KW   Porcine; pig; protease; virus activation protease; influenza;
KW   infectious disease; virucide; envelope protein; orthomyxovirus;
KW   paramyxovirus; influenza virus; haemagglutinin; Sendai virus; F protein;
KW   identification; treatment; myxovirus infection; PCR primer; ss.
XX
OS   Sus scrofa.
XX
PN   WO200055334-A1.
XX
PD   21-SEP-2000.
XX
PF   15-MAR-2000; 2000WO-JP001583.
XX
PR   17-MAR-1999;   99JP-00072027.
XX
PA   (SANY ) SANKYO CO LTD.
PA   (KIDO/) KIDO H.
XX
PI   Yamashita M,  Sato M,  Iida K;
XX
DR   WPI; 2000-587531/55.
XX
PT   Virus activation protease acting on myxovirus envelope protein used for
PT   screening potential inhibitors of influenza and other myxovirus
PT   infection.
XX
PS   Example 4; Page 39; 65pp; Japanese.
XX
CC   The present invention describes a porcine virus activation protease. Also
CC   described are: (1) DNA encoding the protease; (2) expression vectors
CC   containing the DNA; (3) host cells transformed by the vectors; (4)
CC   production of the protease by culture of the transformants; (5) a method
CC   for screening potential inhibitors of the protease by contacting
CC   compounds with the protease and selecting for inhibitory activity; and
CC   (6) monoclonal antibodies recognizing the protease. The protease has
CC   virucide activity. The substrate of the virus activation protease is an
CC   envelope protein of orthomyxovirus or paramyxovirus, such as influenza
CC   virus haemagglutinin or Sendai virus F protein. The protease is used for
CC   identification of drugs and for the prevention and treatment of myxovirus
CC   infection such as influenza. The present sequence represents a PCR primer
CC   for the virus activation protease, which is used in an example from the
CC   present invention
XX
SQ   Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        349 CCCTCCCTACCAGCAGCTGG 368
              || ||| | |||| ||||||
Db          1 CCATCCTTCCCAGAAGCTGG 20


RESULT 4938
AAA09616
ID   AAA09616 standard; DNA; 20 BP.
XX
AC   AAA09616;
XX
DT   30-JAN-2001  (first entry)
XX
DE   Primer SEQ ID 8 used in ADIF identification.
XX
KW   Osteogenesis promoter; adipocytogenesis inhibitory factor; ADIF;
KW   bone disease; osteoporosis; primer; ss.
XX
OS   Synthetic.
XX
PN   JP2000229879-A.
XX
PD   22-AUG-2000.
XX
PF   10-FEB-1999;   99JP-00033261.
XX
PR   10-FEB-1999;   99JP-00033261.
XX
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
XX
DR   WPI; 2000-614867/59.
XX
PT   Novel osteogenesis promoter comprising adipocytogenesis inhibiting
PT   factor, useful for treating osteoporosis.
XX
PS   Example 11; Page 10; 13pp; Japanese.
XX
CC   This invention relates to an osteogenesis promoter, that contains an
CC   adipocytogenesis inhibitory factor (ADIF) as the active component. The
CC   promoter is useful in the prevention or treatment of bone diseases such
CC   as osteoporosis. The present sequence represents a primer used in the
CC   identification of the ADIF cDNA sequence
XX
SQ   Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        712 CCAGCACCTGTTGCTGCACG 731
              | || || || |||||||||
Db          1 CAAGGACTTGCTGCTGCACG 20


RESULT 4939
AAA13090
ID   AAA13090 standard; DNA; 20 BP.
XX
AC   AAA13090;
XX
DT   14-JUL-2000  (first entry)
XX
DE   PCR primer used for interferon (IFN) production.
XX
KW   Increase expression; immune response recognition molecule;
KW   antigen presentation; growth; cell function; screening method; MHC II;
KW   induce; prevent; suppress; major histocompatibility complex; MHC I;
KW   immune recognition process; treat; autoimmune disease; cancer; probe;
KW   PCR primer; interferon; IFN; ss.
XX
OS   Synthetic.
XX
PN   WO200015768-A1.
XX
PD   23-MAR-2000.
XX
PF   10-SEP-1999;   99WO-US020782.
XX
PR   11-SEP-1998;   98US-00151612.
XX
PA   (KOHN/) KOHN L D.
PA   (SUZU/) SUZUKI K.
PA   (MORI/) MORI A.
PA   (IISH/) IISHI K.
PA   (KLIN/) KLINMAN D M.
PA   (RICE/) RICE J M.
XX
```

```
PI   Kohn LD,  Suzuki K,  Mori A,  Iishi K,  Klinman DM,  Rice JM;
XX
DR   WPI; 2000-271411/23.
XX
PT   Increasing the expression of an immune response recognition molecule in a
PT   mammalian cell by introducing a double stranded (DS) polynucleotide,
PT   useful for treating autoimmune diseases and cancers.
XX
PS   Example 2; Page 65; 147pp; English.
XX
CC   This sequence represents a PCR primer used to create a probe for the
CC   interferon (IFN) nucleotide sequence. The invention relates to a method
CC   for increasing the expression of an immune response recognition molecule
CC   in a mammalian cell by introducing a double stranded polynucleotide into
CC   the cell. The introduction of the polynucleotide causes the activation of
CC   a gene involved in antigen presentation, growth and function of the cell,
CC   and increases the ability of the cell to present antigen to an immune
CC   cell. The gene detected by the probe created using the present PCR
CC   primer, is an example of a gene which is activated in the method. The
CC   probe can be used to assess the effectiveness of the method. A method is
CC   also included in the invention for screening a drug composition for its
CC   ability to induce, prevent or suppress the activation of molecules
CC   involved in antigen presentation. The methods are useful for inducing,
CC   preventing, or suppressing activation of MHC class I and class II
CC   molecules, other molecules involved in antigen presentation and the
CC   immune recognition process and molecules controlling the growth and
CC   function of cells. The methods are used to treat autoimmune diseases and
CC   cancer
XX
SQ   Sequence 20 BP; 4 A; 6 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        829 TGAGGTCTTCTGCTCAGTCC 848
              ||| | |||||||||| | ||
Db          1 TGAAGACTTCTGCTCGGACC 20


RESULT 4940
AAZ99922
ID   AAZ99922 standard; DNA; 20 BP.
XX
AC   AAZ99922;
XX
DT   25-JUL-2000  (first entry)
XX
DE   PCR primer used to amplify a 544 bp probe from hCOCH5B2 cDNA.
XX
KW   COCH5B2; hCOCH5B2; extracellular matrix; fibrillar collagen;
KW   hearing disorder; human nonsyndromic sensorineural deafness;
KW   vestibular involvement; DFNA9; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200018211-A2.
XX
PD   06-APR-2000.
XX
PF   29-SEP-1999;   99WO-US022645.
XX
PR   29-SEP-1998;   98US-0102343P.
PR   10-SEP-1999;   99US-00394264.
XX
PA   (BGHM ) BRIGHAM & WOMENS HOSPITAL.
XX
PI   Morton CC,  Robertson NG;
XX
DR   WPI; 2000-292953/25.
XX
PT   COCH5B2 nucleic acid molecule and encoded protein, useful for treatment
PT   of human nonsyndromic sensorineural deafness with vestibular involvement
PT   (DFNA9).
XX
PS   Example; Page 89; 133pp; English.
XX
CC   PCR primers AAZ99921-22 were used to amplify a 544 bp probe from human
CC   COCH5B2 (hCOCH5B2) cDNA. The amplified probe was labelled with 32P, and
CC   used to screen to isolate genomic clones of hCOCH5B2. COCH5B2 molecules
CC   are capable of modulating interactions of components of the extracellular
CC   matrix, e.g. fibrillar collagens. The COCH5B2 protein is expressed in
CC   high levels in human foetal cochlea and vestibule. The protein contains
CC   at least one or two von Willebrand factor type A-like domains, and at
CC   least one factor C homologous domain. The hCOCH5B2 polypeptides and
CC   polynucleotides are useful for treating hearing disorders, such as human
CC   nonsyndromic sensorineural deafness with vestibular involvement (DFNA9)
XX
SQ   Sequence 20 BP; 5 A; 3 C; 4 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1106 GCTAGGGACTTTGCCTATGT 1125
              |||| ||| ||||| ||| |
Db          1 GCTATGGAATTTGCATATCT 20


RESULT 4941
AAA94525/c
ID   AAA94525 standard; DNA; 20 BP.
XX
AC   AAA94525;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20965 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Optionally the internucleotide linkages are
FT                   phosphorothioate"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
```

```
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 39; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAAAAA 2800
              || ||||| |||| ||| ||
Db         20 AAATGAAATAAAAGAAACAA 1


RESULT 4942
AAA94526/c
ID   AAA94526 standard; DNA; 20 BP.
XX
AC   AAA94526;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20966 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Optionally the internucleotide linkages are
FT                   phosphorothioate"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 40; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2782 ATTGAAAAAAAAAAAAAAAA 2801
              | ||||| |||| ||| |||
Db         20 AATGAAATAAAAGAAACAAA 1


RESULT 4943
AAA95875/c
ID   AAA95875 standard; DNA; 20 BP.
XX
AC   AAA95875;
XX
DT   18-JAN-2001  (first entry)
XX
DE   Human N-ras antisense oligonucleotide ISIS #14679.
XX
KW   Human; antisense oligonucleotide; ras; H-ras; Ki-ras; N-ras; cytostatic;
KW   phosphorothioate; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   US6117848-A.
XX
PD   12-SEP-2000.
XX
PF   03-AUG-1998;   98US-00128494.
XX
PR   05-OCT-1992;   92US-00958134.
PR   21-JAN-1993;   93US-00007996.
PR   01-OCT-1993;   93WO-US009346.
PR   03-APR-1995;   95US-00411734.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Mancharan M,  Cowsert LM,  Monia BP;
XX
DR   WPI; 2000-610851/58.
XX
PT   Oligonucleotides targeted to human H-ras or human Ki-ras coding
PT   sequences, useful for treating and preventing cancer.
XX
PS   Disclosure; Col 23; 41pp; English.
XX
CC   The present sequence was used in methods for the modulation of ras
CC   expression. Antisense oligonucleotides were designed to specifically
CC   target mRNA encoding human H-ras, Ki-ras and N-ras. The oligonucleotides
CC   can be used to inhibit the proliferation of cancer cells and to prevent
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CC   or treat a condition arising from the activation of a ras oncogene. They
CC   may also be used to modulate the expression of human H-ras or human Ki-
CC   ras. The antisense oligonucleotides may contain modified backbones,
CC   substituted sugar moieties and modified bases. The sequences preferably
CC   have a phosphorothioate backbone. They are preferably
CC   oligodeoxynucleotides or chimeric oligonucleotides containing 2'-O-methyl
CC   ends and a central deoxy gap
XX
SQ   Sequence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         69 GACGCCTGGTCACCGTGACC 88
              | ||||||||| || ||| ||
Db         20 GCCGCCTGGTTACTGTGTCC 1


RESULT 4944
AAC61860
ID   AAC61860 standard; DNA; 20 BP.
XX
AC   AAC61860;
XX
DT   06-MAR-2001  (first entry)
XX
DE   Antisense oligonucleotide directed against murine Fas (Apo-1) gene.
XX
KW   Human; Fas; Apo-1; antisense compound; Fas ligand; Fap-1; hepatitis;
KW   Fas associated protein 1; protein tyrosine phosphatase; cancer;
KW   autoimmune disease; inflammatory disease; lymphoma; phosphorothioate; ss.
XX
OS   Synthetic.
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .20
FT                   /*tag=  b
FT                   /note= "contains phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  a
FT                   /note= "2'-methoxyethoxy residues"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /note= "2'-methoxyethoxy residues"
XX
PN   WO200061150-A1.
XX
PD   19-OCT-2000.
XX
PF   10-APR-2000; 2000WO-US009540.
XX
PR   12-APR-1999;   99US-00290640.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean NM,  Marcusson EG;
XX
DR   WPI; 2000-628395/60.
XX
PT   Antisense oligonucleotides for treating hepatitis and colon, liver or
PT   lung cancer are inhibitors of Fas, Fas ligand or Fas associated protein 1
PT   (Fap-1) expression.
XX
PS   Example 5; Page 54; 116pp; English.
XX
CC   AAC61860-78 represent antisense oligonucleotides which are directed
CC   against nucleic acids encoding murine Fas (Apo-1). The specification
CC   describes antisense compounds which are targeted to the 5'-untranslated
CC   region, translational start site, translational termination region or 3'-
CC   untranslated region of nucleic acid molecules encoding Fas, Fas ligand
CC   (FasL), or Fap-1 (Fas associated protein 1, protein tyrosine
CC   phosphatase). The antisense compounds are used to inhibit the expression
CC   of Fas, FasL or Fap-1 in cells or tissues. They are used to treat
CC   autoimmune or inflammatory diseases such as hepatitis. They can also be
CC   used to treat cancer, especially colon, liver or lung cancer or lymphoma
XX
SQ   Sequence 20 BP; 8 A; 4 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        231 GCAGCAATGGGAATCCGCGG 250
              ||||||| || || | ||||
Db          1 GCAGCAAGGGAAAACAGCGG 20


RESULT 4945
AAA07904
ID   AAA07904 standard; DNA; 20 BP.
XX
AC   AAA07904;
XX
DT   07-JUL-2000  (first entry)
XX
DE   Hs-UNC-53/2 specific RT-PCR forward primer.
XX
KW   UNC-53; Caenorhabditis elegans; microtubule; neural regeneration;
KW   anticancer; anti-neurodegeneration; antifibrotic; anti-adhesive; human;
KW   antisclerotic; antimetastatic; anti-arthritic; autoimmune disease;
KW   RT-PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9963080-A1.
XX
PD   09-DEC-1999.
XX
PF   02-JUN-1999;   99WO-EP003848.
XX
PR   03-JUN-1998;   98GB-00011962.
XX
PA   (JANC ) JANSSEN PHARM NV.
XX
PI   Luyten WHML,  De Raeymaeker MC,  Geysen JJGH,  Bogaert TAOE;
PI   Maerten LJS,  Verhasselt P,  Van De Craen M;
XX
DR   WPI; 2000-116370/10.
XX
PT   Novel proteins and nucleic acids e.g. for treating neurodegeneration.
XX
PS   Disclosure; Fig 6b; 146pp; English.
XX
CC   The invention provides vertebrate (human) protein homologue of a UNC-53
CC   protein of Caenorhabditis elegans. The UNC-53 binds to microtubules or
CC   their plus ends. The UNC-53 sequences are used to promote neural
CC   regeneration, revascularization and wound healing; also for treating
CC   neurodegenerative disease, acute traumatic injury, fibrotic disease and
CC   autoimmune diseases (e.g. rheumatoid arthritis and sclerosis). The UNC-53
CC   polynucleotides can be used for recombinant production of the proteins,
CC   as a source of probes for detecting allelic variants and polymorphisms,
CC   for sequencing genomic DNA and for detecting UNC-53 expression; and as
CC   source of therapeutic antisense sequences. Cells that express the protein
CC   are used to identify regulators of cell shape, growth, motility and
CC   migration. They can also be used to identify proteins that are involved
CC   in signal transduction pathways also involving UNC-53, and to identify
CC   compounds that alter attachment of UNC-53 to microtubules. A target gene
CC   coupled to a UNC-53 encoding sequence may be used to deliver the target
CC   gene to a cellular microtubule or its plus ends. Sequences AAA07902-7911
CC   represent primers specific for Hs-UNC-53/2, used in RT-PCR studies of Hs-
CC   UNC-53/2 expression
XX
SQ   Sequence 20 BP; 7 A; 5 C; 6 G; 2 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1258 ACTTCTCAGCCAAGACCGGA 1277
              || |||||| |||| | |||
Db          1 ACGTCTCAGACAAGGCAGGA 20


RESULT 4946
AAA07907/c
ID   AAA07907 standard; DNA; 20 BP.
XX
AC   AAA07907;
XX
DT   07-JUL-2000  (first entry)
XX
DE   Hs-UNC-53/2 specific RT-PCR reverse primer.
XX
KW   UNC-53; Caenorhabditis elegans; microtubule; neural regeneration;
KW   anticancer; anti-neurodegeneration; antifibrotic; anti-adhesive; human;
KW   antisclerotic; antimetastatic; anti-arthritic; autoimmune disease;
KW   RT-PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9963080-A1.
XX
PD   09-DEC-1999.
XX
PF   02-JUN-1999;   99WO-EP003848.
XX
PR   03-JUN-1998;   98GB-00011962.
XX
PA   (JANC ) JANSSEN PHARM NV.
XX
PI   Luyten WHML,  De Raeymaeker MC,  Geysen JJGH,  Bogaert TAOE;
PI   Maerten LJS,  Verhasselt P,  Van De Craen M;
XX
DR   WPI; 2000-116370/10.
XX
PT   Novel proteins and nucleic acids e.g. for treating neurodegeneration.
XX
PS   Disclosure; Fig 6b; 146pp; English.
XX
CC   The invention provides vertebrate (human) protein homologue of a UNC-53
CC   protein of Caenorhabditis elegans. The UNC-53 binds to microtubules or
CC   their plus ends. The UNC-53 sequences are used to promote neural
CC   regeneration, revascularization and wound healing; also for treating
CC   neurodegenerative disease, acute traumatic injury, fibrotic disease and
CC   autoimmune diseases (e.g. rheumatoid arthritis and sclerosis). The UNC-53
CC   polynucleotides can be used for recombinant production of the proteins,
CC   as a source of probes for detecting allelic variants and polymorphisms,
CC   for sequencing genomic DNA and for detecting UNC-53 expression; and as
CC   source of therapeutic antisense sequences. Cells that express the protein
CC   are used to identify regulators of cell shape, growth, motility and
CC   migration. They can also be used to identify proteins that are involved
CC   in signal transduction pathways also involving UNC-53, and to identify
CC   compounds that alter attachment of UNC-53 to microtubules. A target gene
CC   coupled to a UNC-53 encoding sequence may be used to deliver the target
CC   gene to a cellular microtubule or its plus ends. Sequences AAA07902-7911
CC   represent primers specific for Hs-UNC-53/2, used in RT-PCR studies of Hs-
CC   UNC-53/2 expression
XX
SQ   Sequence 20 BP; 2 A; 6 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1258 ACTTCTCAGCCAAGACCGGA 1277
              || |||||| |||| | |||
Db         20 ACGTCTCAGACAAGGCAGGA 1


RESULT 4947
AAZ74552
ID   AAZ74552 standard; DNA; 20 BP.
XX
AC   AAZ74552;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:8908.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 2130; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 20 BP; 11 A; 3 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        970 AGCCAAATCGAAAAATGGAG 989
              |||||||  | |||| |||
Db          1 AGCCAAATGAACAAATAGAG 20


RESULT 4948
AAZ75568
ID   AAZ75568 standard; DNA; 20 BP.
XX
AC   AAZ75568;
XX
```

```
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:9924.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 2346; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 20 BP; 10 A; 2 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1493 GAGAAAATGGAGAAACACAG 1512
              || | || ||||| ||||||
Db          1 GATATAAAGGAGATACACAG 20


RESULT 4949
AAZ71396
ID   AAZ71396 standard; DNA; 20 BP.
XX
AC   AAZ71396;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker upstream amplification primer SEQ ID NO:5752.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 1457; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 20 BP; 7 A; 0 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1535 AGGTTAGGAGAGTAGGGAAG 1554
              || | ||||| | |||||||
Db          1 AGATGAGGAGTGGAGGGAAG 20


RESULT 4950
AAZ76490/c
ID   AAZ76490 standard; DNA; 20 BP.
XX
AC   AAZ76490;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:10846.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
```

PF 21-APR-1999; 99WO-IB000822.
XX
PR 21-APR-1998; 98US-0082614P.
PR 23-NOV-1998; 98US-0109732P.
XX
PA (GEST) GENSET.
XX
PI Cohen D, Blumenfeld M, Chumakov I;
XX
DR WPI; 2000-013267/01.
XX
PT Novel biallelic markers used to construct a high density disequilibrium
PT map of the human genome.
XX
PS Claim 9; Page 2543; 2745pp; English.
XX
CC AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC invention, which contain a polymorphic base at position 24 of their
CC nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC primers for the biallelic markers. The biallelic markers of the invention
CC have a variety of uses: they can be used for high density mapping of the
CC human genome, and in complex association studies and haplotyping studies
CC which are useful in determining the genetic basis for disease states.
CC Compositions and methods of the invention can also be useful for the
CC identification of the targets for the development of pharmaceutical
CC agents and diagnostic methods, as well as the characterisation of the
CC differential efficacious responses to and side effects from
CC pharmaceutical agents acting on a disease as well as other treatment.
CC N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC 3367, are not actually given a sequence in the Sequence Listing from the
CC present invention
XX
SQ Sequence 20 BP; 2 A; 3 C; 5 G; 10 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2124 GAAACTTGTAGAAACGAAGC 2143
||||| || |||||||||
Db 20 GAAACCACTATAAACGAAGC 1

RESULT 4951
AAA80059/c
ID AAA80059 standard; DNA; 20 BP.
XX
AC AAA80059;
XX
DT 20-NOV-2000 (first entry)
XX
DE Hepatitis B virus related oligonucleotide probe #322.
XX
KW Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW mutation; high-density gene chip; ss.
XX
OS Hepatitis B virus.
XX
PN CN1252452-A.
XX
PD 10-MAY-2000.
XX
PF 24-SEP-1999; 99CN-00114460.
XX
PR 24-SEP-1999; 99CN-00114460.
XX
PA (UYDO-) UNIV DONGNAN.
XX
PI Sun X, Lu Z, Wang Y;
XX
DR WPI; 2000-443233/39.
XX
PT High-density gene chip making process.
XX
PS Example 1; Fig 15; 19pp; Chinese.
XX
CC The present invention describes a method which comprises making a high-
CC density gene chip, specifically for making high-density micro-array of
CC oligonucleotide probes. An oligonucleotide probe selecting process to
CC seek preferentially length variable and coverage variable probes is
CC provided to ensure identical cross melting temperature of probes to the
CC maximum limit, and this can make the cross control of gene chip
CC relatively simple and raise the reliability of the gene chip detecting
CC results. The process proposes a specific probe selection method for
CC detecting target sequence directly, detecting mutation in both specific
CC and non-specific sites and a probe overall arrangement scheme. AAA79738
CC to AAA80201 represent oligonucleotide probe sequences which are used in
CC examples from the present invention
XX
SQ Sequence 20 BP; 11 A; 5 C; 4 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1678 GGACTTCTTAGTTGTTTCTC 1697
|| |||||| |||||| ||
Db 20 GGTCTTCTTGGTTGTTCTTC 1

RESULT 4952
AAA80060
ID AAA80060 standard; DNA; 20 BP.
XX
AC AAA80060;
XX
DT 20-NOV-2000 (first entry)
XX
DE Hepatitis B virus related oligonucleotide probe #323.
XX
KW Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW mutation; high-density gene chip; ss.
XX
OS Hepatitis B virus.
XX
PN CN1252452-A.
XX
PD 10-MAY-2000.
XX
PF 24-SEP-1999; 99CN-00114460.
XX
PR 24-SEP-1999; 99CN-00114460.
XX
PA (UYDO-) UNIV DONGNAN.
XX
PI Sun X, Lu Z, Wang Y;
XX
DR WPI; 2000-443233/39.
XX
PT High-density gene chip making process.
XX
PS Example 1; Fig 15; 19pp; Chinese.
XX
CC The present invention describes a method which comprises making a high-
CC density gene chip, specifically for making high-density micro-array of
CC oligonucleotide probes. An oligonucleotide probe selecting process to
CC seek preferentially length variable and coverage variable probes is
CC provided to ensure identical cross melting temperature of probes to the
CC maximum limit, and this can make the cross control of gene chip
CC relatively simple and raise the reliability of the gene chip detecting
CC results. The process proposes a specific probe selection method for
CC detecting target sequence directly, detecting mutation in both specific
CC and non-specific sites and a probe overall arrangement scheme. AAA79738
CC to AAA80201 represent oligonucleotide probe sequences which are used in
CC examples from the present invention
XX

```
SQ   Sequence 20 BP; 8 A; 5 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1411 CATCAAAGAAGCCCTGATTG 1430
              || | |||||| |||||| |
Db          1 CAACCAAGAAGACCTGATGG 20


RESULT 4953
AAC55854
ID   AAC55854 standard; DNA; 20 BP.
XX
AC   AAC55854;
XX
DT   19-JAN-2001  (first entry)
XX
DE   PCR primer used to amplify fragment of pKN108.
XX
KW   Mitomycin; biosynthesis; mitosane ring system; antibiotic; anti-cancer;
KW   anti-inflammatory; immune-enhancer; immunosuppressant; asthma;
KW   chronic obstructive pulmonary disease; respiratory inflammation;
KW   fungicide; pesticide; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200053737-A2.
XX
PD   14-SEP-2000.
XX
PF   10-MAR-2000; 2000WO-US006394.
XX
PR   12-MAR-1999;   99US-00266965.
XX
PA   (MINU ) UNIV MINNESOTA.
PA   (SHER/) SHERMAN D H.
PA   (MAOY/) MAO Y.
PA   (VARO/) VAROGLU M.
PA   (HEMM/) HE M.
PA   (SHEL/) SHELDON P C.
XX
PI   Sherman DH,  Mao Y,  Varoglu M,  He M,  Sheldon PC;
XX
DR   WPI; 2000-601980/57.
XX
PT   Novel nucleic acid molecule comprising mitomycin biosynthetic gene
PT   cluster useful for cloning mitomycin biosynthetic genes for elucidating
PT   the molecular basis of mitosane ring system biosynthesis.
XX
PS   Example 2; Page 68; 399pp; English.
XX
CC   This invention relates to isolated and purified nucleic acid molecules
CC   from the mitomycin biosynthetic gene cluster. Mitomycins are a group of
CC   natural products that contain a variety of functional groups, including
CC   amino benzoquinone and axiridine ring systems. The S. lavendulae
CC   mitomycin biosynthetic gene cluster comprises 47 mitomycin genes spanning
CC   55kb of DNA. The invention includes an expression cassette comprising a
CC   mitomycin biosynthetic gene operably linked to a promoter, and host cells
CC   transformed with the cassette. The nucleotide, and protein sequences and
CC   the transformed host cells of the invention result in antiasthmatic,
CC   antiinflammatory, cytostatic, immunomodulatory, and antibiotic
CC   activities. The nucleotide sequences are used to elucidate the molecular
CC   basis for the biosynthesis of the mitosane ring system, as well as to
CC   engineer the biosynthesis of novel natural products, e.g. antibiotics,
CC   anti-inflammatory agents, anti-cancer agents, immune-enhancers,
CC   immunosuppressants, agents to treat asthma, chronic obstructive pulmonary
CC   disease as well as other disease involving respiratory inflammation, or
CC   cholesterol-lowering agents or as crop protection agents (e.g. fungicides
CC   or insecticides) as well as bipolymers, e.g., in packaging or biomedical
CC   applications, or to engineer PHA monomer synthases. Sequences AAC55782-
CC   C55881, AAC55815-C55849 and AAB32485-B32542 represent mitomycin
CC   biosynthetic gene cluster DNA sequences and encoded proteins. Sequences
CC   AAC55812-C55814, AAC55850-C55856 and AAC55862-C55869 represent PCR
CC   primers used in the cloning of the mitomycin biosynthetic genes
XX
SQ   Sequence 20 BP; 3 A; 8 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        507 TGCCCTCGCACCACGGGCGC 526
              ||| | |||| ||||| |||
Db          1 TGCGCGCGCAGCACGGACGC 20


RESULT 4954
AAC55853/c
ID   AAC55853 standard; DNA; 20 BP.
XX
AC   AAC55853;
XX
DT   19-JAN-2001  (first entry)
XX
DE   PCR primer used to amplify fragment of pKN108.
XX
KW   Mitomycin; biosynthesis; mitosane ring system; antibiotic; anti-cancer;
KW   anti-inflammatory; immune-enhancer; immunosuppressant; asthma;
KW   chronic obstructive pulmonary disease; respiratory inflammation;
KW   fungicide; pesticide; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200053737-A2.
XX
PD   14-SEP-2000.
XX
PF   10-MAR-2000; 2000WO-US006394.
XX
PR   12-MAR-1999;   99US-00266965.
XX
PA   (MINU ) UNIV MINNESOTA.
PA   (SHER/) SHERMAN D H.
PA   (MAOY/) MAO Y.
PA   (VARO/) VAROGLU M.
PA   (HEMM/) HE M.
PA   (SHEL/) SHELDON P C.
XX
PI   Sherman DH,  Mao Y,  Varoglu M,  He M,  Sheldon PC;
XX
DR   WPI; 2000-601980/57.
XX
PT   Novel nucleic acid molecule comprising mitomycin biosynthetic gene
PT   cluster useful for cloning mitomycin biosynthetic genes for elucidating
PT   the molecular basis of mitosane ring system biosynthesis.
XX
PS   Example 2; Page 68; 399pp; English.
XX
CC   This invention relates to isolated and purified nucleic acid molecules
CC   from the mitomycin biosynthetic gene cluster. Mitomycins are a group of
CC   natural products that contain a variety of functional groups, including
CC   amino benzoquinone and axiridine ring systems. The S. lavendulae
CC   mitomycin biosynthetic gene cluster comprises 47 mitomycin genes spanning
CC   55kb of DNA. The invention includes an expression cassette comprising a
CC   mitomycin biosynthetic gene operably linked to a promoter, and host cells
CC   transformed with the cassette. The nucleotide, and protein sequences and
CC   the transformed host cells of the invention result in antiasthmatic,
CC   antiinflammatory, cytostatic, immunomodulatory, and antibiotic
CC   activities. The nucleotide sequences are used to elucidate the molecular
CC   basis for the biosynthesis of the mitosane ring system, as well as to
CC   engineer the biosynthesis of novel natural products, e.g. antibiotics,
CC   anti-inflammatory agents, anti-cancer agents, immune-enhancers,
CC   immunosuppressants, agents to treat asthma, chronic obstructive pulmonary
CC   disease as well as other disease involving respiratory inflammation, or
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CC   cholesterol-lowering agents or as crop protection agents (e.g. fungicides
CC   or insecticides) as well as bipolymers, e.g., in packaging or biomedical
CC   applications, or to engineer PHA monomer synthases. Sequences AAC55782-
CC   C55881, AAC55815-C55849 and AAB32485-B32542 represent mitomycin
CC   biosynthetic gene cluster DNA sequences and encoded proteins. Sequences
CC   AAC55812-C55814, AAC55850-C55856 and AAC55862-C55869 represent PCR
CC   primers used in the cloning of the mitomycin biosynthetic genes
XX
SQ   Sequence 20 BP; 1 A; 8 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        507 TGCCCTCGCACCACGGGCGC 526
              ||| | |||| ||||| |||
Db         20 TGCGCGCGCAGCACGGACGC 1


RESULT 4955
AAZ95329
ID   AAZ95329 standard; DNA; 20 BP.
XX
AC   AAZ95329;
XX
DT   31-MAY-2000  (first entry)
XX
DE   Human mtPEPCK phosphorothioate antisense oligonucleotide SEQ ID NO:17.
XX
KW   Human; mitochondrial phosphoenolpyruvate carboxykinase; PEPCK-M; PCK2;
KW   PEPCK-mitochondrial; mtPEPCK; antisense oligonucleotide; modulation;
KW   phosphorothioate; inhibition; diagnosis; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /note= "phosphorothioate linkages"
XX
PN   US6030837-A.
XX
PD   29-FEB-2000.
XX
PF   03-AUG-1999;   99US-00366257.
XX
PR   03-AUG-1999;   99US-00366257.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Mckay R,  Cowsert LM,  Butler MM;
XX
DR   WPI; 2000-205209/18.
XX
PT   New antisense compound targeted to a nucleic acid molecule encoding human
PT   mitochondrial phosphoenolpyruvate carboxykinase useful for treating a
PT   human with a mitochondrial phosphoenolpyruvate carboxykinase-associated
PT   disease.
XX
PS   Claim 3; Col 39; 32pp; English.
XX
CC   AAZ95320 to AAZ95359 represent antisense oligonucleotides targeted to a
CC   nucleic acid molecule encoding human mitochondrial phosphoenolpyruvate
CC   carboxykinase (also known as PEPCK-mitochondrial; PEPCK-M; PCK2 and
CC   mtPEPCK), where the oligonucleotide specifically hybridise with and
CC   inhibit the expression of human mtPEPCK. The antisense oligonucleotides
CC   can be used for inhibiting the expression of mtPEPCK in human cells or
CC   tissues in vitro and can also be used for treating an animal,
CC   particularly a human suspected of having or being prone to a condition or
CC   disease associated with expression of mtPEPCK. They can also be used in
CC   diagnostics and as research reagents in sandwich and other assays
XX
SQ   Sequence 20 BP; 5 A; 7 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1444 CTACATGAACCCTGGAGACC 1463
              || |||| | |||||| |||
Db          1 CTGCATGCAGCCTGGAAACC 20


RESULT 4956
AAA29832
ID   AAA29832 standard; DNA; 20 BP.
XX
AC   AAA29832;
XX
DT   25-AUG-2000  (first entry)
XX
DE   Human jun N-terminal kinase kinase-2 antisense oligonucleotide #17.
XX
KW   Human; jun N-terminal kinase kinase-2; JKK-2; modulation; tumour;
KW   antiinflammatory; cytostatic; antiinfectious; infection; inflammation;
KW   detection; antisense therapy; phosphorothiaote; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /note= "Phosphorothioate linkages"
XX
PN   US6054440-A.
XX
PD   25-APR-2000.
XX
PF   24-JUN-1999;   99US-00344001.
XX
PR   24-JUN-1999;   99US-00344001.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2000-338506/29.
XX
PT   Antisense compound specifically hybridizing and inhibiting the expression
PT   of human Jun N-terminal kinase kinase-2 is useful for treating infection,
PT   inflammation and tumor.
XX
PS   Claim 3; Col 40; 31pp; English.
XX
CC   The present invention describes an antisense compound (I) of 8-30
CC   nucleobases, specifically hybridising to, and inhibiting expression of,
CC   human jun N-terminal kinase kinase-2 (JKK-2). Also described is a method
CC   of inhibiting the expression of human JKK-2 in human cells or tissues,
CC   comprising contacting the cells or tissues, with (I), in vitro. (I) has
CC   antiinflammatory, cytostatic and antiinfectious activities. (I) is useful
CC   for inhibiting the expression of JKK-2 in human cells or tissues and
CC   prevents or delays infection, inflammation or tumour formation associated
CC   with altered expression of JKK-2. (I) is also useful for detecting the
CC   levels of JKK-2 in a sample. The present sequence represents a
CC   phosphorothioate antisense oligonucleotide for human JKK-2, from the
CC   present invention
XX
SQ   Sequence 20 BP; 3 A; 10 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        414 ACGCCGCCGCCATCAACCCC 433
              | | ||||||||||  ||||
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```
Db          1 AGGACGCCGCCATCTTCCCC 20


RESULT 4957
AAZ43999/c
ID   AAZ43999 standard; DNA; 20 BP.
XX
AC   AAZ43999;
XX
DT   17-MAR-2000  (first entry)
XX
DE   Bacteria detecting reverse primer #1.
XX
KW   Detection; microorganism; primer; probe; cosmetic; food; ss.
XX
OS   Bacteria.
XX
PN   WO9958713-A2.
XX
PD   18-NOV-1999.
XX
PF   10-MAY-1999;   99WO-DE001471.
XX
PR   12-MAY-1998;   98DE-01022108.
XX
PA   (BIOI-) BIOINSIDE GMBH.
XX
PI   Gerbling K,  Lauter F,  Grohmann L;
XX
DR   WPI; 2000-072341/06.
XX
PT   A test kit for detecting microbially soiled, non sterile products,
PT   especially pharmaceuticals and cosmetics.
XX
PS   Example 26; Page 75; 77pp; German.
XX
CC   This invention describes a novel test kit to detect microbially soiled,
CC   non-sterile products, in particular after GMP-rich lines, also in
CC   cosmetics and food. The method involves the use of DNA fragment having a
CC   forward primer, probe, a reverse primer and if necessary a spacer
CC   oligonucleotide. The test kit and method are useful for economic
CC   detection of germs in pharmaceutical and cosmetic products. In particular
CC   the method is useful for detecting E. coli, P. aeruginosa, S. aureus and
CC   Salmonella
XX
SQ   Sequence 20 BP; 9 A; 4 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2427 TGGTGCACTTCTTACGACTT 2446
              ||||   ||| |||||||||
Db         20 TGGTTACCTTGTTACGACTT 1


RESULT 4958
AAF20100/c
ID   AAF20100 standard; DNA; 20 BP.
XX
AC   AAF20100;
XX
DT   14-MAR-2001  (first entry)
XX
DE   Human tumour necrosis factor alpha polynucleotide fragment #1667.
XX
KW   Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW   human; airway disorder; bronchoconstriction; lung inflammation;
KW   surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW   immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW   respiratory obstruction; pulmonary obstruction; impeded respiration;
KW   surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW   respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW   pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW   chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW   cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200062736-A2.
XX
PD   26-OCT-2000.
XX
PF   24-MAR-2000; 2000WO-US008020.
XX
PR   06-APR-1999;   99US-0127958P.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
PA   (NYCE/) NYCE J W.
XX
PI   Nyce JW;
XX
DR   WPI; 2000-679539/66.
XX
PT   Low adenosine (A) content antisense oligonucleotides which do not trigger
PT   adenosine receptors during metabolism, useful e.g. for treating cancers
PT   and respiratory obstructions.
XX
PS   Claim 14; Page 241; 1592pp; English.
XX
CC   The present invention describes low adenosine (A) content antisense
CC   oligonucleotides and compositions (I) comprising them. In the antisense
CC   oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC   (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC   immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC   The antisense oligonucleotides and (I) can be used to down-regulate the
CC   expression and or activity of target polypeptides associated with
CC   lung/respiratory disorders and malignancies, such as stimulating and
CC   activating peptide factors and transmitters, transcription factors,
CC   immunoglobulins and antibodies, antibody receptors, cytokines and
CC   chemokines, endogenously produced specific and non-specific enzymes,
CC   binding proteins, adhesion molecules and their receptors, cytokine and
CC   chemokine receptors, adenosine receptors, bradykinin receptors, central
CC   nervous system (CNS) and peripheral nervous and non-nervous system
CC   receptors, CNS and peripheral nervous and non-nervous system peptide
CC   transmitters, defensins, growth factors, vasoactive peptides and
CC   receptors, binding proteins and malignancy associated proteins. The
CC   antisense oligonucleotides may be used in this way to treat disorders
CC   including respiratory obstruction (especially pulmonary obstruction
CC   and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC   surfactant hypoproduction which are associated with a disease or
CC   condition selected from pulmonary vasoconstriction, inflammation,
CC   allergies, asthma, impeded respiration, respiratory distress syndrome
CC   (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC   hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC   pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC   and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC   fragments and antisense oligonucleotides used in the exemplification of
CC   the present invention
XX
SQ   Sequence 20 BP; 0 A; 9 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        478 CGGCCGCCAGAGCCAGGAGG 497
              ||||| ||||||  | ||||
Db         20 CGGCCCCCAGAGGGAAGAGG 1


RESULT 4959
AAA15603/c
ID   AAA15603 standard; DNA; 20 BP.
XX
AC   AAA15603;
```

```
XX
DT   01-AUG-2000  (first entry)
XX
DE   Reverse PCR primer for hPMP69 gene amplification.
XX
KW   PCR primer; adrenoleukodystrophy; 4-phenyl butyrate; 4-PBA; X-ALD;
KW   peroxisome proliferation; fatty acid reduction; treatment; human;
KW   peroxisomal membrane half-transporter protein; hPMP69; ss.
XX
OS   Homo sapiens.
XX
PN   WO200018394-A1.
XX
PD   06-APR-2000.
XX
PF   28-SEP-1999;   99WO-US022415.
XX
PR   28-SEP-1998;   98US-0102186P.
XX
PA   (UYJO ) UNIV JOHNS HOPKINS.
XX
PI   Smith KD;
XX
DR   WPI; 2000-292995/25.
XX
PT   Novel method for treating adrenoleukodystrophy comprises administering an
PT   agent which causes peroxisome proliferation.
XX
PS   Example 7; Page 23; 50pp; English.
XX
CC   This sequence represents a PCR primer used to amplify the hPMP69 gene
CC   that encodes a peroxisomal membrane half-transporter protein. The PCR
CC   product is used in a method for testing the effect of 4-Phenyl butyrate
CC   (4-PBA) treatment on cells derived from patients with X-linked
CC   adrenoleukodystrophy (X-ALD). The invention relates to a treatment for a
CC   patient with adrenoleukodystrophy. The treatment comprises administering
CC   an agent which causes peroxisome proliferation (e.g. 4-PBA). Peroxisome
CC   proliferation causes a reduction in the level of C24:0 or C26:0 fatty
CC   acids in the central nervous system of the patient. Adrenoleukodystrophy
CC   is associated with defective peroxisomal beta-oxidation of saturated long
CC   chain fatty acids. The methods are useful for treating a patient with
CC   adrenoleukodystrophy, and screening for candidate therapeutic agents for
CC   treating adrenoleukodystrophy
XX
SQ   Sequence 20 BP; 2 A; 10 C; 2 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        793 TCAGAAGGAGCTGGTGGGGG 812
              |||| || |||||| ||| |
Db         20 TCAGGAGAAGCTGGAGGGAG 1


RESULT 4960
AAA57980
ID   AAA57980 standard; DNA; 20 BP.
XX
AC   AAA57980;
XX
DT   10-OCT-2000  (first entry)
XX
DE   Candida albicans TCa2 retrotransposon insertion site, contig4-3072.
XX
KW   Retrotransposon; pCal; TCa2; Ty1; copia; long terminal repeat; LTR;
KW   gag gene; group antigen; polyprotein; pol; asparate protease; integrase;
KW   reverse transcriptase; RNaseH; pseudoknot; readthrough translation;
KW   stop codon suppression; gene delivery; gene therapy vector;
KW   genetic vaccine composition; immunogenic; transgenic animal;
KW   genomic insertion site; ds.
XX
OS   Candida albicans.
XX
PN   WO200026397-A1.
XX
PD   11-MAY-2000.
XX
PF   01-NOV-1999;   99WO-NZ000179.
XX
PR   30-OCT-1998;   98CA-02249046.
PR   30-OCT-1998;   98US-0106342P.
XX
PA   (JANC ) JANSSEN PHARM NV.
XX
PI   Luyten WHML,  De Backer MD,  Nelissen BJM,  Poulter RTM;
XX
DR   WPI; 2000-365640/31.
XX
PT   Novel retrotransposon expression vectors useful for expressing an
PT   antigen, epitope or therapeutic agent, or detecting genes or the presence
PT   of Candida in a sample.
XX
PS   Example 19; Fig 69; 204pp; English.
XX
CC   The invention relates to novel retrotransposons from the yeast Candida
CC   albicans which have a copy number of 40-150, preferably 50-100 copies per
CC   genome. In particular, the invention relates to the novel C. albicans
CC   Ty1/copia retrotransposon pCal (AAA57920), and to the integrated form of
CC   this retrotransposon, designated TCa2, and to the novel C. albicans
CC   retrotransposons 1-28. pCal was initially isolated from C. albicans
CC   hOG1042 and has a copy number of 50-100 copies per cell. It comprises
CC   identical 280 bp long terminal repeats (LTRs) and two open reading frames
CC   (ORFs). The first ORF encodes a gag (group antigen) protein, and the
CC   second ORF encodes a polyprotein (pol) consisting of an aspartate
CC   protease, integrase, reverse transcriptase (RT) and RNaseH. The gag and
CC   pol ORFs of pCal are in the same reading frame, separated only by a
CC   termination codon (TGA). Translation of the pol ORF occurs through the
CC   occasional readthrough suppression of the stop codon, which is mediated
CC   by the formation of a pseudoknot within the gag-pol mRNA. The
CC   retrotransposons of the invention can be used as vectors for in vitro or
CC   in vivo transformation and expression. They can thus be used for the
CC   delivery and expression of a therapeutic, immunological or immunogenic
CC   molecule (e.g., an antigen) and may also be used for eliciting an
CC   immunological response in a host organism. They are therefore useful in
CC   genetic vaccine compositions and for gene therapy, particularly where the
CC   use of retroviral vectors is unsafe or undesirable. Additionally, the
CC   retrotransposons may be used to generate transgenic animals, to detect
CC   the presence of Candida in a sample, to detect and disrupt genes, and to
CC   assign functions to nucleotide sequences. Sequences AAA57968-A57981
CC   represent motifs within the C. albicans genome into which a TCa2
CC   retrotransposon was able to insert
XX
SQ   Sequence 20 BP; 15 A; 0 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAAAAA 2800
              ||| || || |||||||| |
Db          1 AATAGAGAAGAAAAAAAATA 20


RESULT 4961
AAA86885/c
ID   AAA86885 standard; DNA; 20 BP.
XX
AC   AAA86885;
XX
DT   15-JAN-2001  (first entry)
XX
DE   Probe for wild type beta-globin PCR targets.
XX
KW   Detection; nucleic acid hybrid; depolymerisation; analysis; SNP;
KW   single nucleotide polymorphism; identification; viral load; probe;
```

KW genotyping; medical marker diagnostic; primer; target; mutation;
KW genetic disease; ss.
XX
OS Oryctolagus cuniculus.
XX
PN WO200049180-A1.
XX
PD 24-AUG-2000.
XX
PF 18-FEB-2000; 2000WO-US004242.
XX
PR 18-FEB-1999; 99US-00252436.
PR 21-JUL-1999; 99US-00358972.
PR 25-AUG-1999; 99US-00383316.
XX
PA (PROM-) PROMEGA CORP.
XX
PI Shultz JW, Lewis MK, Leippe D, Mandrekar M, Kephart D, Rhodes RB;
PI Andrews CA, Hartnett JR, Gu T, Olson RJ, Wood KV, Welch R;
XX
DR WPI; 2000-565377/52.
XX
PT Determining presence or absence of a predetermined endogenous nucleic
PT acid sequence by using an enzyme that depolymerizes the 3' end of an
PT oligonucleotide probe hybridized to a target sequence to release
PT identifier nucleotides.
XX
PS Example; Page 319; 389pp; English.
XX
CC The present invention describes a method (M1) for determining the
CC presence or absence of a predetermined endogenous nucleic acid target
CC sequence (ENAT). The method comprises hybridising a probe having an
CC identifier nucleotide (IN) with ENAT which is treated with an enzyme that
CC depolymerises the 3' end of hybridised NA to release the INs. M1 is used
CC for determining the number of known sequence repeats present in a nucleic
CC acid target sequence in a nucleic acid sample. The method is also useful
CC for determining whether a nucleic acid target sequence in a sample is an
CC allele from a homozygous or heterozygous locus. The method is also useful
CC for detection of mutations, translocations and SNPs in nucleic acids
CC (including those associated with genetic disease), determination of viral
CC load, species identification, sample contamination, and analysis of
CC forensic samples. AAA86791 to AAA87079 and AAB12817 represent sequence
CC which are used in the exemplification of the present invention. N.B.
CC There is a discrepancy between the SEQ ID NO: and sequences given in the
CC examples, and the SEQ ID NO: and sequences given in the sequence listing
CC from the present invention
XX
SQ Sequence 20 BP; 3 A; 8 C; 2 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy        886 CAAAGTGACAGTGGCTGAAG 905
              ||| ||||  |||| |||||
Db         20 CAAGGTGAACGTGGATGAAG 1
```

RESULT 4962
AAC93192
ID AAC93192 standard; DNA; 20 BP.
XX
AC AAC93192;
XX
DT 15-FEB-2001 (first entry)
XX
DE Human STAT3 phosphorothioate antisense oligonucleotide SEQ ID NO:43.
XX
KW Human; mouse; STAT3; phosphorothioate; antisense oligonucleotide;
KW modulation; signal transducer and activator of transcription;
KW DNA-binding protein; signal transduction; inhibition; apoptosis;
KW inflammatory disease; cancer; antiinflammatory; antirheumatic;
KW cytostatic; immunostimulatory; rheumatoid arthritis; leukaemia; myeloma;
KW melanoma; lymphoma; diagnosis; ss.
XX
OS Homo sapiens.
XX
PN WO200061602-A1.
XX
PD 19-OCT-2000.
XX
PF 06-APR-2000; 2000WO-US009054.
XX
PR 08-APR-1999; 99US-00288461.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Karras JG;
XX
DR WPI; 2000-619223/59.
XX
PT New antisense compound for inhibiting the expression of signal transducer
PT and activator of transcription 3 (STAT3) in cells or tissues and treating
PT diseases or condition associated with STAT3, such as rheumatoid arthritis
PT and cancer.
XX
PS Example 2; Page 47; 104pp; English.
XX
CC The present invention describes an antisense compound (I), 8 to 30
CC nucleobases in length, that is targeted to a nucleic acid molecule
CC encoding STAT3 (Signal Transducer and Activator of Transcription) and
CC which inhibits the expression of it. (I) has antiinflammatory,
CC antirheumatic, cytostatic and immunostimulatory activities. (I) is used
CC for inhibiting the expression of STAT3 in cells or tissues, treating an
CC animal having a disease or condition associated with STAT3 or a human
CC having a disease or condition characterised by a reduction in apoptosis,
CC and inducing apoptosis in a cell. Diseases or conditions that are treated
CC are rheumatoid arthritis, cancer of the breast, prostate, brain, head
CC and/or neck, leukaemia, myeloma, melanoma or lymphoma. (I) can also be
CC used for diagnostic methods in detecting and determining the role of
CC STAT3 in various cell functions, physiological processes and conditions
CC and for diagnosing the conditions associated with expression of STAT3.
CC (I) can be used alone or with other drugs as an immunostimulator. (I) is
CC used in sandwich and colourimetric assays, involving enzyme conjugation
CC and radiolabeling and is used in diagnostic kits. AAC93150 encodes human
CC STAT3 and AAC93231 encodes mouse STAT3 as given in the exemplification of
CC the present invention. AAC93151 to AAC93230 and AAC93232 to AAC93299
CC represent STAT3 phosphorothioate antisense oligonucleotides, and AAC93300
CC represents a mismatch control oligonucleotide which are used in example
CC from the present invention
XX
SQ Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       1741 TGACAAGTACTGGCTCTTTA 1760
              ||||||| | ||| ||| ||
Db          1 TGACAAGGAGTGGGTCTCTA 20
```

RESULT 4963
AAA80584/c
ID AAA80584 standard; DNA; 20 BP.
XX
AC AAA80584;
XX
DT 22-NOV-2000 (first entry)
XX
DE Human ASTH1J gene exon e 3' boundary region.
XX
KW ASTH1 locus; ASTH1J; human; chromosome 11p; asthma;
KW bronchial hyperreactivity; ets family; transcription factor;
KW splice variant; genetic predisposition; polymorphism; antibody;
KW drug screening; prophylaxis; therapy; diagnosis; exon boundary; ss.

XX
OS Homo sapiens.
XX
PN US6087485-A.
XX
PD 11-JUL-2000.
XX
PF 21-JAN-1998; 98US-00009913.
XX
PR 21-JAN-1997; 97US-0035663P.
PR 01-JUL-1997; 97US-0051432P.
XX
PA (AXYS-) AXYS PHARM INC.
XX
PI Galvin M, Miller A, North M, Cardon L, Buckler A;
PI Brooks-Wilson AR, Carey AH;
XX
DR WPI; 2000-505109/45.
XX
PT New nucleic acids other than naturally occurring chromosomes encoding
PT ASTH1 protein, for e.g. screening compositions that modulate expression
PT or function of ASTH1 proteins or as diagnostics for genetic
PT predisposition to asthma.
XX
PS Example; Col 38; 131pp; English.
XX
CC The invention relates to the ASTH1 locus on the short arm of human
CC chromosome (11p). This locus comprises the ASTH1I and ASTH1J genes, which
CC are associated with a genetic predisposition to asthma and bronchial
CC hyperreactivity. The ASTH1I and ASTH1J genes are oriented in opposite
CC directions with the ASTH1 locus, and have similar patterns of expression
CC and common sequence motifs. They are both expressed in trachea, lung and
CC several other tissues. ASTH1I and ASTH1J are novel members of the ets
CC family of transcription factors, which have been implicated in the
CC activation of a variety of genes including the TCRa gene and cytokine
CC genes known to be important in the aetiology of asthma. Both ASTH1I and
CC ASTH1J mRNAs are alternatively spliced. Alternative splicing of
CC transcripts has no effect on the open reading frame of ASTH1J, as the
CC exons involved are all 5' to the start codon in exon b. In contrast,
CC alternative splicing of ASTH1I transcripts results in 3 different ASTH1I
CC isoforms. The invention also encompasses mouse asth1j protein. The ASTH1
CC nucleic acids are useful as diagnostics to identify a hereditary
CC predisposition to asthma, as probes for identifying ASTH1 related genes,
CC for identifying expression of the gene in a biological specimen, and for
CC generating genetically modified non-human animals or site specific gene
CC modifications in cell lines. The encoded ASTH1 proteins are useful as
CC immunogens to raise specific antibodies; in drug screening for
CC compositions that mimic or modulate activity or expression of ASTH1I
CC and/or ASTH1J (including altered forms of these proteins); and as a
CC therapeutic. The ASTH1 genes or fragments thereof, encoded proteins,
CC ASTH1 genomic regulatory regions, and anti-ASTH1I and anti-ASTH1J
CC antibodies are useful in the identification of individuals predisposed to
CC development of asthma, and for modulation of gene activity in vivo for
CC prophylactic and therapeutic purposes. The intact ASTH1I or ASTH1J
CC proteins or active fragments thereof may be used to modulate or reduce
CC bronchial hyperreactivity. Sequences AAA80571-A80594 represent the exon
CC boundary regions of the human ASTH1J gene
XX
SQ Sequence 20 BP; 8 A; 4 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1619 AGTTTGTTACCTACCTTACT 1638
|||| ||||||||| | ||
Db 20 AGTTAGTTACCTACTGTGCT 1

RESULT 4964
ABL57553/c
ID ABL57553 standard; DNA; 20 BP.
XX
AC ABL57553;
XX
DT 26-JUL-2002 (first entry)
XX
DE Synthetic deoxyribooligonucleotide poly t.
XX
KW Concentration; quantification; mutation detection; polymorphic;
KW polymerase chain reaction; PCR; ss.
XX
OS Synthetic.
XX
PN EP1046717-A2.
XX
PD 25-OCT-2000.
XX
PF 20-APR-2000; 2000EP-00108643.
XX
PR 20-APR-1999; 99JP-00111601.
XX
PA (NIBI-) JAPAN BIOINDUSTRY ASSOC.
PA (AGEN) AGENCY OF IND SCI & TECHNOLOGY.
PA (KANK-) KANKYO ENG CO LTD.
XX
PI Kurane R, Kanagawa T, Kamagata Y, Kurata S, Yamada K, Yokomaku T;
PI Koyama O, Furusho K;
XX
DR WPI; 2000-657765/64.
XX
PT Determining the concentration of a target nucleic acid, useful e.g. for
PT detecting genetic mutations, comprises using a fluorescently labeled
PT probe in which emission is reduced by binding to the target nucleic acid.
XX
PS Example 6; Page 23; 55pp; English.
XX
CC The invention relates to the determination of the concentration of a
CC nucleic acid target, using a fluorescently labeled probe which produces
CC reduced fluorescence emission when hybridised to the target nucleic acid.
CC The method comprises measuring the reduction in emission caused by
CC hybridisation. The new method is particularly used to quantify target
CC nucleic acids by a real-time polymerase chain reaction, e.g. for
CC quantifying microbial cells in co-cultures or symbiotic systems, for
CC detecting gene mutations or polymorphisms, and for analysing melting
CC curves of target nucleic acids to determine a Tm value. Methods of the
CC invention allow target nucleic acids to be quantified quickly, easily and
CC accurately. Particularly there is no need to remove unbound probe, and no
CC materials are introduced that inhibit amplification by Taq polymerase (so
CC conventional PCR conditions can be used). The specificity of PCR is kept
CC high (amplification of primer dimers is delayed), and the limit of
CC quantitation is reduced. Complex probes are not needed, and amplification
CC can be monitored in real time. The working graph for data analysis
CC (automatically generated by a computer) has a higher correlation
CC coefficient than conventional graphs so more accurate quantitation is
CC possible. The current sequence represents a synthetic
CC deoxyribooligonucleotide that was used for investigating the effects of
CC the number of G(s) in each target nucleic acid, and the number of G(S) in
CC its corresponding invention nucleic acid probe
XX
SQ Sequence 20 BP; 4 A; 1 C; 0 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAAAAAA 2804
|||||||||||| | | | |
Db 20 GAAAAAAAAAAATATATATA 1

RESULT 4965
ABL57554
ID ABL57554 standard; DNA; 20 BP.
XX
AC ABL57554;

XX
DT 26-JUL-2002 (first entry)
XX
DE Synthetic deoxyribooligonucleotide poly u.
XX
KW Concentration; quantification; mutation detection; polymorphic;
KW polymerase chain reaction; PCR; ss.
XX
OS Synthetic.
XX
PN EP1046717-A2.
XX
PD 25-OCT-2000.
XX
PF 20-APR-2000; 2000EP-00108643.
XX
PR 20-APR-1999; 99JP-00111601.
XX
PA (NIBI-) JAPAN BIOINDUSTRY ASSOC.
PA (AGEN) AGENCY OF IND SCI & TECHNOLOGY.
PA (KANK-) KANKYO ENG CO LTD.
XX
PI Kurane R, Kanagawa T, Kamagata Y, Kurata S, Yamada K, Yokomaku T;
PI Koyama O, Furusho K;
XX
DR WPI; 2000-657765/64.
XX
PT Determining the concentration of a target nucleic acid, useful e.g. for
PT detecting genetic mutations, comprises using a fluorescently labeled
PT probe in which emission is reduced by binding to the target nucleic acid.
XX
PS Example 6; Page 23; 55pp; English.
XX
CC The invention relates to the determination of the concentration of a
CC nucleic acid target, using a fluorescently labeled probe which produces
CC reduced fluorescence emission when hybridised to the target nucleic acid.
CC The method comprises measuring the reduction in emission caused by
CC hybridisation. The new method is particularly used to quantify target
CC nucleic acids by a real-time polymerase chain reaction, e.g. for
CC quantifying microbial cells in co-cultures or symbiotic systems, for
CC detecting gene mutations or polymorphisms, and for analysing melting
CC curves of target nucleic acids to determine a Tm value. Methods of the
CC invention allow target nucleic acids to be quantified quickly, easily and
CC accurately. Particularly there is no need to remove unbound probe, and no
CC materials are introduced that inhibit amplification by Taq polymerase (so
CC conventional PCR conditions can be used). The specificity of PCR is kept
CC high (amplification of primer dimers is delayed), and the limit of
CC quantitation is reduced. Complex probes are not needed, and amplification
CC can be monitored in real time. The working graph for data analysis
CC (automatically generated by a computer) has a higher correlation
CC coefficient than conventional graphs so more accurate quantitation is
CC possible. The current sequence represents a synthetic
CC deoxyribooligonucleotide that was used for investigating the effects of
CC the number of G(s) in each target nucleic acid, and the number of G(S) in
CC its corresponding invention nucleic acid probe
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              | | | | ||||||||||||
Db          1 TATATATATTTTTTTTTTTT 20
```

RESULT 4966
AAA37705
ID AAA37705 standard; DNA; 20 BP.
XX
AC AAA37705;
XX
DT 22-NOV-2000 (first entry)
XX
DE Human Rad51 antisense inhibitor AS5.
XX
KW Antisense inhibitor; human; Rad51; cell proliferation; cancer survival;
KW radiation sensitivity; therapy; AS5; ss.
XX
OS Homo sapiens.
XX
PN WO200047231-A2.
XX
PD 17-AUG-2000.
XX
PF 03-FEB-2000; 2000WO-US002881.
XX
PR 10-FEB-1999; 99US-0119578P.
PR 06-DEC-1999; 99US-00454495.
XX
PA (PANG-) PANGENE CORP.
XX
PI Reddy G;
XX
DR WPI; 2000-506091/45.
XX
PT Inhibiting cell proliferation useful for cancer therapy, comprises
PT administering Rad51 inhibitor in vivo.
XX
PS Claim 8; Page 25; 42pp; English.
XX
CC This sequence represents an antisense inhibitor of human Rad51,
CC designated AS5 (also referred to as R51AS5). The antisense inhibitors can
CC be used in a method of the invention, for inhibiting cell proliferation.
CC They can also be used in methods for inducing sensitivity to radiation
CC and DNA damaging chemotherapeutics in an individual and in a method for
CC prolonging survival in an individual with cancer. The methods and
CC antisense molecules are useful for inhibiting cell proliferation,
CC especially cancerous cell proliferation, for inducing sensitivity to
CC radiation and DNA damaging chemotherapeutics in individuals and for
CC prolonging survival in an individual with cancer. Kits for carrying out
CC the methods may be used to diagnose and/or treat cancer and for
CC adjunctive therapy
XX
SQ Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy        563 GCGGGCGCGGTGAGCGCCCG 582
              ||||||| ||   |||||||
Db          1 GCGGGCGTGGCACGCGCCCG 20
```

RESULT 4967
AAF31770/c
ID AAF31770 standard; DNA; 20 BP.
XX
AC AAF31770;
XX
DT 10-APR-2001 (first entry)
XX
DE Human RANK antisense oligonucleotide, SEQ ID NO: 28.
XX
KW Human; cytostatic; antiinflammatory; antisense oligonucleotide; cancer;
KW receptor activator of NF-kappaB; RANK; infection; inflammation; ss.
XX
OS Homo sapiens.
XX
PN US6171860-B1.
XX
PD 09-JAN-2001.
XX
PF 05-NOV-1999; 99US-00435296.

```
XX
PR   05-NOV-1999;   99US-00435296.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baker BF,  Cowsert LM;
XX
DR   WPI; 2001-136876/14.
XX
PT   Novel antisense compounds capable of modulating expression of human
PT   receptor activator of NF-kappaB useful for diagnosis, prophylaxis and
PT   treatment of diseases associated with expression of RANK.
XX
PS   Claim 14; Col 42; 40pp; English.
XX
CC   The present sequence is one of a number of antisense compounds of 8 to 30
CC   nucleobases in length that have been designed to target a 5'untranslated
CC   region, start codon, coding region or 3'untranslated region of the human
CC   receptor activator of NF-kappaB (RANK). The antisense compounds
CC   specifically hybridise with and inhibit the expression of RANK. The
CC   antisense oligonucleotides are useful for inhibiting the expression of
CC   human RANK in human cells or tissues. They can be utilised for
CC   diagnostics, therapeutics for the treatment of diseases associated with
CC   the expression of RANK, prophylaxis e.g. to prevent or delay infection,
CC   inflammation or tumour formation, and as research reagent. The antisense
CC   compounds are safely and effectively administered to humans
XX
SQ   Sequence 20 BP; 3 A; 7 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        705 TCGACGACCAGCACCTGTTG 724
              | | || |||||||| ||||
Db         20 TGGGCGCCCAGCACCCGTTG 1


RESULT 4968
AAA91252/c
ID   AAA91252 standard; DNA; 20 BP.
XX
AC   AAA91252;
XX
DT   08-MAY-2001  (first entry)
XX
DE   Antisense IGFBP-5 inhibitor #58.
XX
KW   Insulin-like growth factor binding protein-5; IGFBP-5; human;
KW   antisense oligonucleotide; hormone-regulated cancer; prostatic cancer;
KW   breast cancer; therapy; ss.
XX
OS   Homo sapiens.
XX
PN   WO200105435-A2.
XX
PD   25-JAN-2001.
XX
PF   19-JUL-2000; 2000WO-CA000853.
XX
PR   19-JUL-1999;   99US-0144495P.
XX
PA   (UYBR-) UNIV BRITISH COLUMBIA.
PA   (MIYA/) MIYAKE H.
XX
PI   Gleave M;
XX
DR   WPI; 2001-168448/17.
XX
PT   Composition for treating hormone-regulated cancer, e.g. breast and
PT   prostatic tumors, comprising an antisense oligonucleotide that inhibits
PT   expression of insulin like growth factor binding protein-5 by hormone-
PT   regulated tumor cells.
XX
PS   Disclosure; Page 44; 45pp; English.
XX
CC   This sequence represents an antisense oligonucleotide targeted against
CC   human insulin-like growth factor binding protein-5 (IGFBP-5). The
CC   invention relates to a composition for treatment of hormone-regulated
CC   cancer, comprising an antisense oligonucleotide (such as this sequence)
CC   which inhibits expression of IGFBP-5 by hormone-regulated tumour cells.
CC   The compositions is useful for delaying progression of hormone-regulated
CC   tumour cells such as prostatic cancer cells or breast cancer cells, to an
CC   androgen-independent state, by treating hormone sensitive tumour cells
CC   with the antisense sequence which inhibits expression of IGFBP-5 by the
CC   tumour cells. The composition can also be used for treating a hormone-
CC   responsive cancer in an individual, and administering the composition to
CC   the individual after initiation of hormone-withdrawal to induce apoptotic
CC   cell death of hormone-responsive tumour cells, and therefore delaying the
CC   progression of hormone-responsive cancer cells to a hormone-independent
CC   state in the individual. It can also be used for inhibiting or delaying
CC   metastatic boney progression of an IGF-1 sensitive tumour in a mammal, by
CC   administering the composition to inhibit the expression of IGFBP-5 by the
CC   hormone-responsive cancer cells, and therefore inhibiting or delaying
CC   metastatic boney progression of the tumour
XX
SQ   Sequence 20 BP; 1 A; 10 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        643 GGGCCTGGCCGAGAACCTGG 662
              ||| | |||| ||| |||||
Db         20 GGGGCCGGCCCAGAGCCTGG 1


RESULT 4969
AAA91233/c
ID   AAA91233 standard; DNA; 20 BP.
XX
AC   AAA91233;
XX
DT   08-MAY-2001  (first entry)
XX
DE   Antisense IGFBP-5 inhibitor #39.
XX
KW   Insulin-like growth factor binding protein-5; IGFBP-5; human;
KW   antisense oligonucleotide; hormone-regulated cancer; prostatic cancer;
KW   breast cancer; therapy; ss.
XX
OS   Homo sapiens.
XX
PN   WO200105435-A2.
XX
PD   25-JAN-2001.
XX
PF   19-JUL-2000; 2000WO-CA000853.
XX
PR   19-JUL-1999;   99US-0144495P.
XX
PA   (UYBR-) UNIV BRITISH COLUMBIA.
PA   (MIYA/) MIYAKE H.
XX
PI   Gleave M;
XX
DR   WPI; 2001-168448/17.
XX
PT   Composition for treating hormone-regulated cancer, e.g. breast and
PT   prostatic tumors, comprising an antisense oligonucleotide that inhibits
PT   expression of insulin like growth factor binding protein-5 by hormone-
PT   regulated tumor cells.
XX
PS   Disclosure; Page 40; 45pp; English.
XX
CC   This sequence represents an antisense oligonucleotide targeted against
```

CC human insulin-like growth factor binding protein-5 (IGFBP-5). The
CC invention relates to a composition for treatment of hormone-regulated
CC cancer, comprising an antisense oligonucleotide (such as this sequence)
CC which inhibits expression of IGFBP-5 by hormone-regulated tumour cells.
CC The compositions is useful for delaying progression of hormone-regulated
CC tumour cells such as prostatic cancer cells or breast cancer cells, to an
CC androgen-independent state, by treating hormone sensitive tumour cells
CC with the antisense sequence which inhibits expression of IGFBP-5 by the
CC tumour cells. The composition can also be used for treating a hormone-
CC responsive cancer in an individual, and administering the composition to
CC the individual after initiation of hormone-withdrawal to induce apoptotic
CC cell death of hormone-responsive tumour cells, and therefore delaying the
CC progression of hormone-responsive cancer cells to a hormone-independent
CC state in the individual. It can also be used for inhibiting or delaying
CC metastatic boney progression of an IGF-1 sensitive tumour in a mammal, by
CC administering the composition to inhibit the expression of IGFBP-5 by the
CC hormone-responsive cancer cells, and therefore inhibiting or delaying
CC metastatic boney progression of the tumour
XX
SQ Sequence 20 BP; 3 A; 5 C; 8 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 543 CCCACCTCTCCGGGCTGGAG 562
||| | |||||| |||| ||
Db 20 CCCGCATCTCCGAGCTGAAG 1

RESULT 4970
AAS01198
ID AAS01198 standard; cDNA; 20 BP.
XX
AC AAS01198;
XX
DT 04-JUL-2001 (first entry)
XX
DE Human RAD51 antisense oligonucleotide, AS5.
XX
KW Human; Rad51; antisense; drug screening; cancer; autoimmune disease;
KW arthritis; graft rejection; inflammatory bowel disease; surgery;
KW angioplasty; ss.
XX
OS Homo sapiens.
XX
PN WO200119397-A1.
XX
PD 22-MAR-2001.
XX
PF 18-SEP-2000; 2000WO-US025838.
XX
PR 17-SEP-1999; 99US-0154616P.
PR 06-DEC-1999; 99US-00455300.
XX
PA (PANG-) PANGENE CORP.
XX
PI Reddy G;
XX
DR WPI; 2001-244704/25.
XX
PT Inhibiting cell proliferation for treating arthritis, graft rejection,
PT inflammatory bowel disease, cancer, proliferation induced after medical
PT procedure, involves administering Rad51 antibody or its fragment to cell.
XX
PS Example 6; Fig 16B; 102pp; English.
XX
CC The sequence represents the human Rad51 antisense oligonucleotide, AS5.
CC The antisense oligonucleotide is used to study down-regulation of Rad51
CC protein in human brain, breast and prostate cells. Rad51 protein is
CC defective in repair of damaged DNA, genetic recombination and the
CC recombinational repair of DNA lesions, and plays a central role in
CC cancer. Inhibiting cell proliferation involves administering to a cell a
CC Rad51 antibody or its fragment. The Rad51 antibody or its fragment is
CC useful for inhibiting cell proliferation, for treating disease states
CC such as cancer, autoimmune disease, arthritis, graft rejection,
CC inflammatory bowel disease, proliferation induced after medical
CC procedures such as surgery, angioplasty etc. in humans and animals
XX
SQ Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 563 GCGGGCGCGGTGAGCGCCCG 582
||||||| || |||||||
Db 1 GCGGGCGTGGCACGCGCCCG 20

RESULT 4971
AAI70304/c
ID AAI70304 standard; DNA; 20 BP.
XX
AC AAI70304;
XX
DT 07-JAN-2002 (first entry)
XX
DE Phage lambda vector primer J gene PCR primer CF1018.
XX
KW DNA polymerase; phage lambda; vector; J gene; PCR primer; ss.
XX
OS Bacteriophage lambda.
XX
PN EP1130118-A2.
XX
PD 05-SEP-2001.
XX
PF 16-FEB-1995; 2001EP-00113936.
XX
PR 25-FEB-1994; 94US-00203198.
PR 16-FEB-1995; 95EP-00102141.
XX
PA (HOFF) HOFFMANN LA ROCHE & CO AG F.
XX
PI Cheng S;
XX
DR WPI; 2001-640282/74.
XX
PT New DNA polymerase composition consisting of a combination of a first DNA
PT polymerase and a second DNA polymerase, useful for amplifying nucleic
PT acids, particularly long nucleic acid sequences by PCR.
XX
PS Example 1; Page 13; 26pp; English.
XX
CC The invention provides a DNA polymerase composition for the PCR
CC amplification of long (over 10 kb) nucleic acid sequences. The
CC composition includes the DNA polymerase of Thermus thermophilus and a
CC second, thermostable, DNA polymerase that provides 3'-to-5' exonuclease
CC activity. Use of the composition was demonstrated for the amplification
CC of inserts from phage lambda clones, with the second DNA polymerase
CC provided by Thermotoga maritima. Primers CF1018 (present sequence) and
CC CF1019 (see AAI70305) were designed from the J and cro genes of phage
CC lambda. CF1018 corresponds to nucleotides 18892-18891 of the phage lambda
CC genome, while CF1019 is complementary to nucleotides 38197-38217.
CC Amplifications were carried out using randomly selected plaques from a
CC human genomic library in lambda FIX II. Amplification products were
CC analysed by gel electrophoresis following digestion with NotI to separate
CC the insert from the flanking vector sequences. The presence of both
CC vector fragments confirmed that the entire insert was amplified. The size
CC of the amplified products ranged from less than 10 kb to greater than 20
CC kb; insert sizes of 9-23 kb are accommodated by this lambda vector
XX
SQ Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;

```
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        707 GACGACCAGCACCTGTTGCT 726
              || | ||||| ||||||  ||
Db         20 GATGCCCAGCGCCTGTTTCT 1


RESULT 4972
AAC67211
ID   AAC67211 standard; DNA; 20 BP.
XX
AC   AAC67211;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human E2F transcription factor 3 mRNA antisense sequence SEQ ID NO: 84.
XX
KW   Human; E2F transcription factor 3; antisense; E2F-3; cancer;
KW   phosphorothioate backbone; infection; inflammation; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   US6165791-A.
XX
PD   26-DEC-2000.
XX
PF   24-FEB-2000; 2000US-00513729.
XX
PR   24-FEB-2000; 2000US-00513729.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Popoff I,  Wyatt J;
XX
DR   WPI; 2001-101698/11.
XX
PT   Novel antisense compounds targeted to E2F transcription factor 3 for
PT   diagnosis, prophylaxis and treatment of diseases associated with E2F
PT   transcription factor 3 such as infection, inflammation or tumor
PT   formation.
XX
PS   Example 15; Col 45-46; 41pp; English.
XX
CC   The present invention provides antisense oligonucleotides with
CC   phosphorothioate backbones directed at the human E2F transcription factor
CC   3 (E2F-3) coding sequences. These can be used in the therapy of diseases
CC   which can be treated by modulating E2F-3 expression and to prevent
CC   infection, inflammation and tumour formation
XX
SQ   Sequence 20 BP; 4 A; 6 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        361 GCAGCTGGCCTACTCCCAGT 380
              | || | ||||||||||| |
Db          1 GTAGTTTGCCTACTCCCAAT 20


RESULT 4973
AAF73008/c
ID   AAF73008 standard; DNA; 20 BP.
XX
AC   AAF73008;
XX
DT   24-APR-2001  (first entry)
XX
DE   Human daxx inhibitory antisense phosphorothioate oligonucleotide SEQ:109.
XX
KW   Antisense oligonucleotide; daxx; inhibition; phosphorothioate;
KW   Fas binding protein; CENP-C binding protein; dap6; EAP; cytostatic;
KW   antiinflammatory; death associated protein 6; Ets-1 associated protein;
KW   infection; inflammation; tumour formation; ss.
XX
OS   Homo sapiens.
XX
PN   US6180353-B1.
XX
PD   30-JAN-2001.
XX
PF   24-JAN-2000; 2000US-00490692.
XX
PR   24-JAN-2000; 2000US-00490692.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean NM,  Cowsert LM;
XX
DR   WPI; 2001-217744/22.
XX
PT   Novel antisense compounds capable of modulating expression of daxx useful
PT   for diagnosis, prophylaxis and treatment of diseases associated with
PT   expression of daxx.
XX
PS   Claim 1; Col 47; 59pp; English.
XX
CC   The present invention describes an antisense compound (I) up to 30
CC   nucleobases in length, where (I) inhibits expression of daxx (also known
CC   as Fas binding protein, CENP-C binding protein, dap6 for death associated
CC   protein 6 and EAP for Ets-1 associated protein). (I) has cytostatic and
CC   antiinflammatory activity, and can be used in antisense therapy and as a
CC   modulator of daxx. (I) is useful for inhibiting the expression of daxx in
CC   cells or tissues in vitro. (I) can be utilised for diagnostics,
CC   therapeutics for the treatment of diseases associated with the expression
CC   of daxx, prophylaxis e.g. to prevent or delay infection, inflammation or
CC   tumour formation and as research reagent. The present sequence represents
CC   an inhibitory human daxx antisense phosphorothioate oligonucleotide which
CC   is used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 8 A; 6 C; 5 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1992 TGTGTATCTAGCTTCTTCAG 2011
              ||||| ||| || ||| |||
Db         20 TGTGTTTCTGGCCTCTGCAG 1


RESULT 4974
AAD11311/c
ID   AAD11311 standard; DNA; 20 BP.
XX
AC   AAD11311;
XX
DT   24-SEP-2001  (first entry)
XX
DE   Human cot oncogene antisense oligonucleotide, ISIS 116352.
XX
KW   Human; cot oncogene; antisense therapy; inflammation; cancer; antisense;
KW   immune system disorder; prophylaxis; cytostatic; immunomodulator; Tpl-2;
KW   est; phosphorothioate backbone; untranslated region; UTR; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
```

```
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl residues"
FT   modified_base   8
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   10
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl residues"
XX
PN   US6265216-B1.
XX
PD   24-JUL-2001.
XX
PF   20-JAN-2000; 2000US-00489868.
XX
PR   20-JAN-2000; 2000US-00489868.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Wyatt J;
XX
DR   WPI; 2001-463936/50.
XX
PT   New antisense oligonucleotides for modulating cot oncogene expression,
PT   particularly useful for diagnosing or treating diseases associated with
PT   expression of cot oncogene, such as inflammation, cancer or immune system
PT   disorders.
XX
PS   Claim 3; Col 40; 39pp; English.
XX
CC   The invention relates to antisense oligonucleotides, compositions and
CC   methods for modulating cot oncogene expression. The cot oncogene is also
CC   known as Tpl-2 and est. The compositions comprise antisense compounds,
CC   particularly antisense oligonucleotides, targetted to nucleic acids
CC   encoding cot oncogene. The antisense oligonucleotides are useful for
CC   modulating the expression of cot oncogene and for treating diseases
CC   associated with expression of cot oncogene, e.g. inflammation, cancer or
CC   disorders of the immune system. The antisense oligonucleotides are also
CC   useful for diagnosis or prophylaxis or as research reagents and kits. The
CC   present sequence is human cot oncogene antisense oligonucleotide, ISIS
CC   116352. This sequence was targetted towards the 5' untranslated region
CC   (UTR) of human cot oncogene
XX
SQ   Sequence 20 BP; 4 A; 2 C; 9 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1051 AGCCGCTCATGTGACTCTCC 1070
              | |  |||||| ||||||||
Db         20 ACCACCTCATGAGACTCTCC 1

RESULT 4975
AAC92738
ID   AAC92738 standard; DNA; 20 BP.
XX
AC   AAC92738;
XX
DT   27-MAR-2001  (first entry)
XX
DE   Human hnRNP A1 phosphorothioate antisense oligonucleotide, SEQ ID NO:10.
XX
KW   Human hnRNP A1; heterogeneous nuclear ribonucleoprotein A1;
KW   heterogeneous nuclear ribonucleoprotein core protein A1; p40CRS;
KW   mRNA processing; transport; stabilisation; alternative splicing;
KW   donor splice site selection; telomere biogenesis; oncogenesis;
KW   apoptosis-associated protein; cancer; tumour formation;
KW   expression inhibition; phosphorothioate; antisense oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
PN   US6165789-A.
XX
PD   26-DEC-2000.
XX
PF   27-OCT-1999;   99US-00428696.
XX
PR   27-OCT-1999;   99US-00428696.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-090484/10.
XX
PT   Novel antisense compound targeted to human hnRNP A1 which specifically
PT   hybridizes with and inhibits the expression of human hnRNP A1, useful for
PT   modulating the expression of hnRNP A1 in cells.
XX
PS   Example 15; Col 39-40; 38pp; English.
XX
CC   Sequences AAC92738-C92817 represent antisense oligonucleotides targetted
CC   to the heterogeneous nuclear ribonucleoprotein A1 (hnRNP A1) gene, which
CC   inhibit its expression. The antisense oligonucleotides were designed to
CC   target different regions of the human hnRNP A1 mRNA, and were analysed
CC   for their effect on hnRNP A1 mRNA levels by quantitative real-time PCR.
CC   hnRNP A1 (also known as heterogeneous nuclear ribonucleoprotein core
CC   protein A1 and p40CRS) is thought to function in the stabilisation,
CC   transport and processing (including alternative splicing) of newly
CC   synthesised mRNAs. It facilitates the annealing of single-stranded
CC   nucleic acids, modulates the binding of snRNPs to RNA intron sequences,
CC   and shuttles continuously between the nucleus and the cytoplasm acting as
CC   a carrier protein for mRNAs. hnRNP A1 also participates in telomere
CC   biogenesis, with low levels of hnRNP correlating with shortened
CC   telomeres. In addition, hnRNP A1 has also been classified as an apoptosis
CC   -associated protein on the basis that it is specifically cleaved into
CC   three fragments during antibody-mediated apoptosis. Due to its ability to
CC   control splicing events, particularly donor splice site selection, hnRNP
CC   A1 is implicated in the process of oncogenesis. The oligonucleotides of
CC   the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with hnRNP A1 expression, such as cancer
XX
SQ   Sequence 20 BP; 2 A; 11 C; 2 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       336 CACCCTACTTTCCCCCTCCC 355
             || ||||| ||| ||||| |
Db         1 CAGCCTACCTTCGCCCTCTC 20

RESULT 4976
AAH57066
ID   AAH57066 standard; DNA; 20 BP.
XX
AC   AAH57066;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human oestrogen receptor alpha probe oligonucleotide 11.
XX
KW   Ligand dependent transcriptional factor; oestrogen receptor; ER;
KW   glucocorticoid receptor protein; GR; mineralocorticoid receptor protein;
KW   MR; peroxisome proliferator-activated receptor protein; PPAR;
KW   progesterone receptor protein; PR; pregnane X receptor protein; PXR;
KW   thyroid hormone receptor protein; TR; vitamin D receptor protein; VDR;
KW   transactivation; ERalpha; breast cancer; PCR primer; probe; ss.
XX
```

```
OS   Homo sapiens.
XX
PN   WO200142307-A1.
XX
PD   14-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-JP008553.
XX
PR   07-DEC-1999;   99JP-00348022.
PR   27-DEC-1999;   99JP-00370667.
PR   07-JUL-2000; 2000JP-00207011.
PR   21-JUL-2000; 2000JP-00220508.
PR   02-AUG-2000; 2000JP-00234053.
PR   03-AUG-2000; 2000JP-00235460.
PR   03-AUG-2000; 2000JP-00235461.
PR   03-AUG-2000; 2000JP-00235463.
XX
PA   (SUMO ) SUMITOMO CHEM CO LTD.
XX
PI   Saito K,  Ohe N,  Satoh H;
XX
DR   WPI; 2001-367866/38.
XX
PT   Ligand dependent transcriptional factors, nucleic acids encoding them and
PT   cells comprising them and a specified reporter gene, useful for screening
PT   agents for the treatment of breast cancer.
XX
PS   Disclosure; Page 237; 276pp; English.
XX
CC   The present invention relates to ligand dependent transcriptional factors
CC   including oestrogen receptor (ER) alpha and beta protein, glucocorticoid
CC   receptor protein (GR), mineralocorticoid receptor protein (MR),
CC   peroxisome proliferator-activated receptor protein (PPAR), progesterone
CC   receptor protein (PR), pregnane X receptor protein (PXR), thyroid hormone
CC   receptor protein (TR) and vitamin D receptor protein (VDR), the nucleic
CC   acids encoding them and cells comprising them and a specified reporter
CC   gene for the ligand dependent transcriptional factor. These proteins are
CC   useful in the modulation of ligand dependent transcriptional factor
CC   activity. The cells, mutant ERalpha and the polynucleotide encoding it
CC   may be used in assays for qualitatively analysing an activity for
CC   transactivation of a reporter gene by a test ERalpha, for screening
CC   mutant ligand dependent transcriptional factors, for evaluating an
CC   activity for transactivation of a reporter gene by a test ERalpha and/or
CC   for screening a compound useful for treating a disorder of a mutant
CC   ERalpha, especially breast cancer
XX
SQ   Sequence 20 BP; 2 A; 9 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        369 CCTACTCCCAGTCGGCCGAC 388
              |||  |||| | ||||||||
Db          1 CCTTGTCCCTGACGGCCGAC 20


RESULT 4977
AAH57065
ID   AAH57065 standard; DNA; 20 BP.
XX
AC   AAH57065;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human oestrogen receptor alpha probe oligonucleotide 10.
XX
KW   Ligand dependent transcriptional factor; oestrogen receptor; ER;
KW   glucocorticoid receptor protein; GR; mineralocorticoid receptor protein;
KW   MR; peroxisome proliferator-activated receptor protein; PPAR;
KW   progesterone receptor protein; PR; pregnane X receptor protein; PXR;
KW   thyroid hormone receptor protein; TR; vitamin D receptor protein; VDR;
KW   transactivation; ERalpha; breast cancer; PCR primer; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200142307-A1.
XX
PD   14-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-JP008553.
XX
PR   07-DEC-1999;   99JP-00348022.
PR   27-DEC-1999;   99JP-00370667.
PR   07-JUL-2000; 2000JP-00207011.
PR   21-JUL-2000; 2000JP-00220508.
PR   02-AUG-2000; 2000JP-00234053.
PR   03-AUG-2000; 2000JP-00235460.
PR   03-AUG-2000; 2000JP-00235461.
PR   03-AUG-2000; 2000JP-00235463.
XX
PA   (SUMO ) SUMITOMO CHEM CO LTD.
XX
PI   Saito K,  Ohe N,  Satoh H;
XX
DR   WPI; 2001-367866/38.
XX
PT   Ligand dependent transcriptional factors, nucleic acids encoding them and
PT   cells comprising them and a specified reporter gene, useful for screening
PT   agents for the treatment of breast cancer.
XX
PS   Disclosure; Page 236; 276pp; English.
XX
CC   The present invention relates to ligand dependent transcriptional factors
CC   including oestrogen receptor (ER) alpha and beta protein, glucocorticoid
CC   receptor protein (GR), mineralocorticoid receptor protein (MR),
CC   peroxisome proliferator-activated receptor protein (PPAR), progesterone
CC   receptor protein (PR), pregnane X receptor protein (PXR), thyroid hormone
CC   receptor protein (TR) and vitamin D receptor protein (VDR), the nucleic
CC   acids encoding them and cells comprising them and a specified reporter
CC   gene for the ligand dependent transcriptional factor. These proteins are
CC   useful in the modulation of ligand dependent transcriptional factor
CC   activity. The cells, mutant ERalpha and the polynucleotide encoding it
CC   may be used in assays for qualitatively analysing an activity for
CC   transactivation of a reporter gene by a test ERalpha, for screening
CC   mutant ligand dependent transcriptional factors, for evaluating an
CC   activity for transactivation of a reporter gene by a test ERalpha and/or
CC   for screening a compound useful for treating a disorder of a mutant
CC   ERalpha, especially breast cancer
XX
SQ   Sequence 20 BP; 1 A; 8 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        365 CTGGCCTACTCCCAGTCGGC 384
              |||||||  |||| | ||||
Db          1 CTGGCCTTGTCCCTGACGGC 20


RESULT 4978
AAA91571
ID   AAA91571 standard; DNA; 20 BP.
XX
AC   AAA91571;
XX
DT   22-AUG-2001  (first entry)
XX
DE   Adaptor molecule #926.
XX
KW   Adaptor molecule; nucleic acid fragment detection; genome analysis;
KW   polymorphism detection; ss.
XX
OS   Synthetic.
XX
```

PN WO200140508-A1.
XX
PD 07-JUN-2001.
XX
PF 01-DEC-2000; 2000WO-AU001484.
XX
PR 01-DEC-1999; 99AU-00004396.
XX
PA (UNSY) UNIV SYDNEY.
XX
PI Reeves PR;
XX
DR WPI; 2001-374855/39.
XX
PT Adaptor molecules for detecting genetic polymorphisms by amplified
PT fragment length polymorphism finger-printing, have two hybridized strands
PT and extension sequence of second strand hybridizes to a further strand.
XX
PS Claim 37; Fig 9; 43pp; English.
XX
CC This sequence is an example of an adaptor molecule of the invention. The
CC adaptor molecules (M1 and M2) are detecting nucleic acid fragments. The
CC molecules comprise first and second strands (S1 and S2) which are
CC hybridised to each other so that an extension sequence (ES) of (S2)
CC extends from the nucleotide of (S2) which is hybridised with the 3'
CC terminal nucleotide of (S1) and ES in use being capable of hybridising to
CC a further strand. The adaptor molecules are useful for detecting a
CC nucleic acid molecule which has hetero ends in a sample of nucleic acid
CC molecules, for detecting a polymorphism in a genome. The advantage of
CC (M1) and (M2) is that a hot start step can be incorporated prior to the
CC synthesis of the third strand. The hot start step involves heating the
CC sample of nucleic acid prior to a temperature which prevents activity of
CC a polymerase in the sample before the first primer is hybridised. This
CC increases the specificity of the primer
XX
SQ Sequence 20 BP; 6 A; 4 C; 5 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 810 GGGCCGTAATGAACCCCACT 829
|| |||||||||| ||||
Db 1 GGATGGTAATGAACCTCACT 20

RESULT 4979
AAF59983/c
ID AAF59983 standard; DNA; 20 BP.
XX
AC AAF59983;
XX
DT 22-MAY-2001 (first entry)
XX
DE Rabbit beta-globin interrogation probe 10665, SEQ ID NO:19.
XX
KW Nucleoside diphosphate kinase; NDPK; thermostable; PfuNDPK;
KW nucleic acid detection; hybrid detection; pyrophosphorolysis;
KW DNA depolymerisation; rabbit beta-globin hybridisation probe; ss.
XX
OS Oryctolagus cuniculus.
XX
PN WO200107580-A1.
XX
PD 01-FEB-2001.
XX
PF 18-FEB-2000; 2000WO-US004206.
XX
PR 21-JUL-1999; 99US-00358972.
XX
PA (PROM-) PROMEGA CORP.
XX
PI Andrews CA, Hartnett JR;
XX
DR WPI; 2001-182784/18.
XX
PT New thermostable nucleoside diphosphate kinase enzyme useful for nucleic
PT acid detection and in a one-step or a one-pot pyrophosphorolysis method
PT of depolymerization.
XX
PS Example 4; Page 58; 101pp; English.
XX
CC The invention relates to novel thermostable nucleoside diphosphate
CC kinases (NDPK) from Pyrococcus furiosus (AAB60679, AAB60683) and to DNA
CC sequences which encode them (AAF59974, AAF59978, AAF59989, AAF59990,
CC AAF59991). The novel nucleoside diphosphate kinases (PfuNDPK-2 and
CC PfuNDPK-1) are identical in sequence, except that PfuNDPK-2 contains an
CC additional five residues at the N-terminus. The novel NDPKs both exhibit
CC higher NDPK activity at a temperature of about 50-90 degrees C relative
CC to the NDPK activity at 37 degrees C. The invention also relates to
CC expression vectors and host cells comprising a PfuNDPK-encoding nucleic
CC acid; a method for the recombinant production of a PfuNDPK of the
CC invention; and a a composition for determining the presence or absence of
CC a predetermined nucleic acid target sequence in a sample, comprising a
CC PfuNDPK of the invention and a probe complementary to the target
CC sequence. The thermostable NDPKs are useful in methods for the detection
CC of nucleic acids, particularly for determining the presence or absence of
CC a predetermined nucleic acid sequence in a nucleic acid sample. The
CC enzymes are useful in a one-step or a one-pot pyrophosphorolysis method
CC of depolymerisation. The PfuNDPK enzymes provide for the highly sensitive
CC detection of nucleic acid hybrids without the need for radiochemicals or
CC electrophoresis. The PfuNDPK enzymes can be used in conjunction with high
CC temperature amplification without a substantial loss of NDPK activity.
CC The enzyme is useful in high throughput robotically-manipulated
CC procedures because greater enzymatic stability is retained at room
CC temperature. Sequences AAF59981-AAF59986 represents rabbit beta-globin
CC hybridisation probes used with a PfuNDPK in an assay for native and
CC mutant rabbit beta-globin sequences in an exemplification of the
CC invention
XX
SQ Sequence 20 BP; 3 A; 8 C; 2 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 886 CAAAGTGACAGTGGCTGAAG 905
||| |||| |||| |||||
Db 20 CAAGGTGAACGTGGATGAAG 1

RESULT 4980
AAH25808
ID AAH25808 standard; DNA; 20 BP.
XX
AC AAH25808;
XX
DT 20-AUG-2001 (first entry)
XX
DE Human ibaI DNA PCR primer #1.
XX
KW Human; mouse; immunomodulatory; monocyte; macrophage; inhibitor;
KW PCR primer; ss.
XX
OS Homo sapiens.
XX
PN JP2001078775-A.
XX
PD 27-MAR-2001.
XX
PF 14-SEP-1999; 99JP-00260793.
XX
PR 14-SEP-1999; 99JP-00260793.
XX
PA (KOKU-) KOKURITSU SEISHIN SHINKEI CENT SOCHO.
PA (IYAK-) IYAKUHIN FUKUSAYO HIGAI KYUSAI KENKYU SH.

PA (MOCH) MOCHIDA PHARM CO LTD.
XX
DR WPI; 2001-313369/33.
XX
PT A macrophage function modifier useful for preventing and treating
PT diseases caused by the increase or decrease in macrophage activity or
PT function.
XX
PS Example 1; Page 8; 20pp; Japanese.
XX
CC The present invention provides a number of murine and human IbaI
CC derivatives, which are capable of inhibiting the function of cells with
CC monocyte or macrophage activity. These can be used as immunomodulators to
CC prevent and treat diseases caused by a decrease or increase in the
CC activity or the function of macrophages or an activator or an inhibitor
CC of the function of cells of macrophage type. The present sequence is a
CC PCR primer used in the exemplification of the invention
XX
SQ Sequence 20 BP; 4 A; 11 C; 1 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 346 TCCCCCTCCCTACCAGCAGC 365
||||| | ||||||||| |
Db 1 TCCCCACCTCTACCAGCATC 20

RESULT 4981
AAH25827
ID AAH25827 standard; DNA; 20 BP.
XX
AC AAH25827;
XX
DT 20-AUG-2001 (first entry)
XX
DE Adipogenesis inhibitory factor related oligonucleotide #5.
XX
KW Human; adipogenesis inhibitory factor; ADIF; obesity; primer; ss.
XX
OS Synthetic.
XX
PN JP2001078777-A.
XX
PD 27-MAR-2001.
XX
PF 16-SEP-1999; 99JP-00262777.
XX
PR 16-SEP-1999; 99JP-00262777.
XX
PA (SNOW) SNOW BRAND MILK PROD CO LTD.
XX
DR WPI; 2001-313370/33.
XX
PT Novel adipogenesis inhibitory factor useful for treatment and/or the
PT prevention of fatness and as antigen for establishing immunological
PT diagnosis.
XX
PS Example 12; Page 14; 19pp; Japanese.
XX
CC The present invention describes a human adipogenesis inhibitory factor,
CC shown in AAB98971. This can be used as a drug composition for the
CC treatment and prevention of obesity and as an antigen for establishing
CC immunological diagnosis. The present sequence is an oligonucleotide used
CC in the exemplification of the invention
XX
SQ Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 712 CCAGCACCTGTTGCTGCACG 731
| || || || |||||||||
Db 1 CAAGGACTTGCTGCTGCACG 20

RESULT 4982
AAH56682
ID AAH56682 standard; DNA; 20 BP.
XX
AC AAH56682;
XX
DT 06-SEP-2001 (first entry)
XX
DE Streptococcus pyogenes groEL antisense oligonucleotide SEQ ID NO:330.
XX
KW Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW antibacterial; antiviral; antiproliferative; antisense therapy;
KW microbial infection; ss.
XX
OS Streptococcus pyogenes.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA001347.
XX
PR 18-NOV-1999; 99US-0166249P.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT gene of microorganism, which hybridize with and inhibit expression of the
PT genes, useful to inhibit growth of microorganism having the genes.
XX
PS Claim 3; Page 50; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or GS
CC of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC antiproliferative activities, and can be used in antisense therapy and
CC for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL or
CC GS gene and administering (I) such that the growth of microorganism is
CC inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention
XX
SQ Sequence 20 BP; 2 A; 5 C; 0 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;

```
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2157 TTTTTCTCCTTTTTTTTTTT 2176
              |||| | |||||||| || |
Db          1 TTTTACCCCTTTTTTCTTAT 20


RESULT 4983
AAH56570
ID   AAH56570 standard; DNA; 20 BP.
XX
AC   AAH56570;
XX
DT   06-SEP-2001  (first entry)
XX
DE   S. pneumoniae groE operon antisense oligonucleotide SEQ ID NO:218.
XX
KW   Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW   microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW   Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW   antibacterial; antiviral; antiproliferative; antisense therapy;
KW   microbial infection; ss.
XX
OS   Streptococcus pneumoniae.
XX
PN   WO200136625-A2.
XX
PD   25-MAY-2001.
XX
PF   20-NOV-2000; 2000WO-CA001347.
XX
PR   18-NOV-1999;   99US-0166249P.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA,  Young AH,  Dugourd D;
XX
DR   WPI; 2001-355633/37.
XX
PT   Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT   gene of microorganism, which hybridize with and inhibit expression of the
PT   genes, useful to inhibit growth of microorganism having the genes.
XX
PS   Claim 3; Page 46; 110pp; English.
XX
CC   The present invention specifically claims AAH56368 to AAH56832 which are
CC   antisense oligonucleotides to nucleotide sequences encoding groE. More
CC   generally, antisense compounds (I) comprising antisense oligonucleotides
CC   of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC   shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC   microorganism, where the antisense compound is complementary to GL or GS
CC   of a microorganism and specifically hybridises with and inhibits the
CC   expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC   antiproliferative activities, and can be used in antisense therapy and
CC   for inhibition of expression of groES or groEL. (I) are useful for
CC   inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC   also useful for inhibiting the growth of a microorganism, or inhibiting
CC   the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC   virus) having a GL or GS gene which involves administering to the
CC   microorganism or to a cell infected with the microorganism, (I). (I) are
CC   also useful for treating a mammalian pathological condition mediated by
CC   the microorganisms which involves identifying a eukaryotic organism
CC   having a pathological condition mediated by microorganisms having a GL or
CC   GS gene and administering (I) such that the growth of microorganism is
CC   inhibited. The antisense compounds are utilised for diagnostics,
CC   therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC   prevent or delay microbial infections in humans. They are also useful as
CC   molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC   represent PCR primers for groE sequences which are used in the
CC   exemplification of the present invention. AAH56855 to AAH56870 represent
CC   groE nucleotide sequence given in the present invention
XX
SQ   Sequence 20 BP; 8 A; 6 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1913 AACAATACCTTTTTTTTCAG 1932
              ||||||||||| ||   |||
Db          1 AACAATACCTTCTTCAACAG 20


RESULT 4984
AAH56423/c
ID   AAH56423 standard; DNA; 20 BP.
XX
AC   AAH56423;
XX
DT   06-SEP-2001  (first entry)
XX
DE   Escherichia coli groE operon antisense oligonucleotide SEQ ID NO:71.
XX
KW   Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW   microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW   Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW   antibacterial; antiviral; antiproliferative; antisense therapy;
KW   microbial infection; ss.
XX
OS   Escherichia coli.
XX
PN   WO200136625-A2.
XX
PD   25-MAY-2001.
XX
PF   20-NOV-2000; 2000WO-CA001347.
XX
PR   18-NOV-1999;   99US-0166249P.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA,  Young AH,  Dugourd D;
XX
DR   WPI; 2001-355633/37.
XX
PT   Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT   gene of microorganism, which hybridize with and inhibit expression of the
PT   genes, useful to inhibit growth of microorganism having the genes.
XX
PS   Claim 3; Page 41; 110pp; English.
XX
CC   The present invention specifically claims AAH56368 to AAH56832 which are
CC   antisense oligonucleotides to nucleotide sequences encoding groE. More
CC   generally, antisense compounds (I) comprising antisense oligonucleotides
CC   of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC   shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC   microorganism, where the antisense compound is complementary to GL or GS
CC   of a microorganism and specifically hybridises with and inhibits the
CC   expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC   antiproliferative activities, and can be used in antisense therapy and
CC   for inhibition of expression of groES or groEL. (I) are useful for
CC   inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC   also useful for inhibiting the growth of a microorganism, or inhibiting
CC   the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC   virus) having a GL or GS gene which involves administering to the
CC   microorganism or to a cell infected with the microorganism, (I). (I) are
CC   also useful for treating a mammalian pathological condition mediated by
CC   the microorganisms which involves identifying a eukaryotic organism
CC   having a pathological condition mediated by microorganisms having a GL or
CC   GS gene and administering (I) such that the growth of microorganism is
CC   inhibited. The antisense compounds are utilised for diagnostics,
CC   therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC   prevent or delay microbial infections in humans. They are also useful as
CC   molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC   represent PCR primers for groE sequences which are used in the
```

```
CC   exemplification of the present invention. AAH56855 to AAH56870 represent
CC   groE nucleotide sequence given in the present invention
XX
SQ   Sequence 20 BP; 3 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2778 TAGAATTGAAAAAAAAAAAA 2797
              | ||| ||||| | ||||||
Db         20 TTGAAATGAAAGAGAAAAAA 1


RESULT 4985
AAF80839/c
ID   AAF80839 standard; DNA; 20 BP.
XX
AC   AAF80839;
XX
DT   02-MAY-2001  (first entry)
XX
DE   Human mdm2 phosphorothioate oligonucleotide #213.
XX
KW   Antisense; mdm2; hyperproliferation; cancer; psoriasis; ss.
XX
OS   Homo sapiens.
XX
PN   US6184212-B1.
XX
PD   06-FEB-2001.
XX
PF   26-MAR-1999;   99US-00280805.
XX
PR   26-MAR-1998;   98US-00048810.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Miraglia LJ,  Nero P,  Graham MJ,  Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-190948/19.
XX
PT   Novel antisense compound 8-30 nucleobases in length targeted to a nucleic
PT   acid molecule encoding human mdm-2 useful for modulating the expression
PT   of human mdm-2 and reducing hyperproliferation of human cells.
XX
PS   Example 9; Col 31; 77pp; English.
XX
CC   The present invention relates to an antisense compound 8-30 nucleobases
CC   in length targeted to nucleobases 1-308 of the 5' untranslated region,
CC   1776-1806 of the translation termination codon region or 1818-2370 of the
CC   3' untranslated region of a nucleic acid molecule encoding human mdm-2.
CC   The invention is useful for reducing hyperproliferation of human cells,
CC   modulating the expression of mdm2 in human cells or tissues or in vitro.
CC   The hyperproliferative disorder includes cancer or psoriasis
XX
SQ   Sequence 20 BP; 8 A; 1 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2520 TTTATTCATATATATACAGG 2539
              |||||||| ||||||  | |
Db         20 TTTATTCACATATATCAAAG 1


RESULT 4986
AAS10664
ID   AAS10664 standard; DNA; 20 BP.
XX
AC   AAS10664;
XX
DT   24-OCT-2001  (first entry)
XX
DE   Human caspase 3 antisense oligonucleotide 108988.
XX
KW   Human; caspase 3; apoptosis; hyperproliferative disorder; hepatitis;
KW   viral infection; haematopoietic disorder; autoimmune disorder;
KW   atherosclerosis; neurological disorder; antisense; phosphorothioate; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= phosphorothioate internucleotide linkages.
FT                   Some bases especially bases 1-5 and bases 16-20 are 2'-
FT                   methoxyethyl (2'-MOE) bases, bases 6-15 are 2'-
FT                   deoxynucleotides and all cytidine bases are 5'-
FT                   methylcytidines"
XX
PN   WO200153310-A1.
XX
PD   26-JUL-2001.
XX
PF   11-JAN-2001; 2001WO-US000888.
XX
PR   18-JAN-2000; 2000US-00484617.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Zhang H,  Cowsert LM;
XX
DR   WPI; 2001-442252/47.
XX
PT   New antisense compound to inhibit caspase 3 is useful for treating
PT   hepatitis and atherosclerosis.
XX
PS   Claim 3; Page 87; 127pp; English.
XX
CC   The present sequence for human caspase 3 antisense oligonucleotide 108988
CC   is 1 of various novel antisense oligonucleotides (AAS10517-AAS10676)
CC   described in the present invention. Also described are methods of using
CC   these compounds for the modulation of caspase 3 expression. The caspase 3
CC   antisense oligonucleotides specifically hybridise with and inhibit the
CC   expression of caspase 3. Antisense compounds targeted to caspase 3 are
CC   useful to inhibit caspase 3 expression in cells or tissues and to
CC   modulate apoptosis. The caspase 3 antisense oligonucleotides are useful
CC   for treating disorders associated with expression of caspase 3. Such
CC   disorders include hyperproliferative disorders (e.g. cancer), viral
CC   infections (e.g. hepatitis), haematopoietic disorders, autoimmune
CC   disorders, atherosclerosis and neurological disorders (e.g. Alzheimer's
CC   disease)
XX
SQ   Sequence 20 BP; 4 A; 5 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1742 GACAAGTACTGGCTCTTTAT 1761
              ||||  |||| |||| ||||
Db          1 GACAGTTACTTGCTCCTTAT 20


RESULT 4987
AAF29930
ID   AAF29930 standard; DNA; 20 BP.
XX
AC   AAF29930;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human estrogen receptor alpha isoform primer #5.
```

XX
KW Human; estrogen receptor alpha; cancer; osteoporosis; bone; Alzheimer's;
KW cardiovascular; ss.
XX
OS Homo sapiens.
XX
PN WO200100823-A1.
XX
PD 04-JAN-2001.
XX
PF 27-JUN-2000; 2000WO-EP005981.
XX
PR 29-JUN-1999; 99IT-MI001433.
XX
PA (EUMO-) EURO MOLECULAR BIOLOGY LAB.
XX
PI Gannon F, Denger S, Flouriot G;
XX
DR WPI; 2001-137955/14.
XX
PT Novel isoforms of human estrogen receptor alpha useful for preparing
PT therapeutic agents for treating cancer, osteoporosis, Alzheimer's disease
PT and cardiovascular diseases.
XX
PS Disclosure; Page 15; 53pp; English.
XX
CC The present invention relates to a human estrogen receptor (hER)-alpha
CC isoform. Molecules which modulate the activity of the estrogen receptor
CC are useful for the preparation of therapeutic agents for treating cancer,
CC osteoporosis and other bone disorders, Alzheimer's disease and
CC cardiovascular diseases
XX
SQ Sequence 20 BP; 1 A; 8 C; 3 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       1666 TCACCCGCCCCTGGACTTCT 1685
              || | || |||| |||||||
Db          1 TCTCTCGGCCCTTGACTTCT 20
```

RESULT 4988
AAF99650/c
ID AAF99650 standard; DNA; 20 BP.
XX
AC AAF99650;
XX
DT 12-JUN-2001 (first entry)
XX
DE Immunostimulatory nucleic acid #766.
XX
KW Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW immunostimulatory; tumour; viral infection; bacterial infection;
KW fungal infection; parasitic infection; cancer; asthma;
KW infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS Synthetic.
XX
PN WO200122972-A2.
XX
PD 05-APR-2001.
XX
PF 25-SEP-2000; 2000WO-US026383.
XX
PR 25-SEP-1999; 99US-0156113P.
PR 27-SEP-1999; 99US-0156135P.
PR 23-AUG-2000; 2000US-0227436P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (COLE-) COLEY PHARM GMBH.
XX
PI Krieg AM, Schetter C, Vollmer J;
XX
DR WPI; 2001-273485/28.
XX
PT Vaccinating against tumors, infectious diseases, allergies and asthma
PT using immunostimulatory Py-rich and TG nucleic acids.
XX
PS Claim 101; Page 55; 338pp; English.
XX
CC The present invention relates to a method for stimulating an immune
CC response. The method comprises administering an immunostimulatory nucleic
CC acid to a non-rodent subject in sufficient quantity to stimulate an
CC immune response. The present sequence is one such immunostimulatory
CC nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC also useful for preventing cancer, asthma, infectious disease, allergy or
CC immune deficiency. The present sequence can also be used to redirect a
CC Th2 to a Th1 immune response and to activate immune cells. Note: the
CC present sequence may have a phosphorothioate backbone
XX
SQ Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              |||||||||| ||| |||
Db         20 TTTTTTGAACGTCATGTTTT 1
```

RESULT 4989
AAF99396/c
ID AAF99396 standard; DNA; 20 BP.
XX
AC AAF99396;
XX
DT 12-JUN-2001 (first entry)
XX
DE Immunostimulatory nucleic acid #512.
XX
KW Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW immunostimulatory; tumour; viral infection; bacterial infection;
KW fungal infection; parasitic infection; cancer; asthma;
KW infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS Synthetic.
XX
PN WO200122972-A2.
XX
PD 05-APR-2001.
XX
PF 25-SEP-2000; 2000WO-US026383.
XX
PR 25-SEP-1999; 99US-0156113P.
PR 27-SEP-1999; 99US-0156135P.
PR 23-AUG-2000; 2000US-0227436P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (COLE-) COLEY PHARM GMBH.
XX
PI Krieg AM, Schetter C, Vollmer J;
XX
DR WPI; 2001-273485/28.
XX
PT Vaccinating against tumors, infectious diseases, allergies and asthma
PT using immunostimulatory Py-rich and TG nucleic acids.
XX
PS Claim 101; Page 48; 338pp; English.

```
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1

RESULT 4990
AAF99576
ID   AAF99576 standard; DNA; 20 BP.
XX
AC   AAF99576;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #692.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 53; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20

RESULT 4991
AAF99225/c
ID   AAF99225 standard; DNA; 20 BP.
XX
AC   AAF99225;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #341.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 45; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
```

```
SQ   Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1543 AGAGTAGGGAAGGAACAGGA 1562
              ||| |  |||||||| |||
Db         20 AGACTGAGGAAGGAACTGGA 1


RESULT 4992
AAH41798/c
ID   AAH41798 standard; DNA; 20 BP.
XX
AC   AAH41798;
XX
DT   29-AUG-2001  (first entry)
XX
DE   RIP 140 gene PCR primer SEQ ID NO:45.
XX
KW   Base; string; tape; circular disc; ligand; immobilised; PCR primer;
KW   detection; diagnosis; ss.
XX
OS   Synthetic.
XX
PN   WO200135098-A1.
XX
PD   17-MAY-2001.
XX
PF   24-OCT-2000; 2000WO-JP007415.
XX
PR   05-NOV-1999;   99JP-00315610.
XX
PA   (TAKI ) TAKARA SHUZO CO LTD.
XX
PI   Kato I,  Izu H,  Asada K;
XX
DR   WPI; 2001-343623/36.
XX
PT   String, tape or disk shaped bases with several different immobilized
PT   ligands including nucleic acids, sugars, peptides and proteins.
XX
PS   Example 1; Page 47; 56pp; Japanese.
XX
CC   The present invention describes bases in the shape of a string, tape or
CC   circular disc on the surface of which a plural number of different
CC   ligands are immobilised respectively in pre-determined domains. Also
CC   described are devices for detecting the binding between the ligands and
CC   receptors and methods for detection using these bases. The methods are
CC   useful for detection in biochemical and diagnostic assays. The ligands
CC   are immobilised in line, so the user only needs to determine the presence
CC   or absence of receptor binding, without further processing. AAH41754 to
CC   AAH41815 represent primers which are used in an example from the present
CC   invention
XX
SQ   Sequence 20 BP; 2 A; 6 C; 3 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        895 AGTGGCTGAAGTACAGAGGC 914
              | || |||||| | ||||||
Db         20 AATGACTGAAGCAAAGAGGC 1


RESULT 4993
AAS43108/c
ID   AAS43108 standard; DNA; 20 BP.
XX
AC   AAS43108;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Human ERbeta gene, ER1, 5' splice donor, exon 1E.
XX
KW   Human; Oestrogen receptor beta; ERbeta; ds; SNP; chromosome 6q.25.1;
KW   single nucleotide polymorphism; cardiovascular disease; 5' splice donor;
KW   autoimmune disease; systemic lupus erythematosus; arthritis; rheumatism;
KW   osteoarthritis; osteoporosis; breast cancer; endometrial cancer.
XX
OS   Homo sapiens.
XX
PN   WO200162793-A2.
XX
PD   30-AUG-2001.
XX
PF   20-FEB-2001; 2001WO-US005360.
XX
PR   22-FEB-2000; 2000US-0183755P.
PR   24-JAN-2001; 2001US-00768185.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Kalush F,  Cassel MJ,  Hwang SS,  Winn-Deen ES;
XX
DR   WPI; 2001-582041/65.
XX
PT   Estrogen receptor gene and protein polymorphisms useful for diagnosis of
PT   individuals at risk of developing bone disorders.
XX
PS   Example 2; Page 55; 245pp; English.
XX
CC   The invention relates to a novel isolated peptide comprising or
CC   consisting of an amino acid sequence selected from an amino acid sequence
CC   of a variant oestrogen receptor protein (e.g. ERbeta), or a fragment of
CC   10 amino acids), antibodies against them, nucleic acids encoding them
CC   (including vectors for transforming cells). The gene for human ERbeta is
CC   located on chromosome 6q.25.1. The variants are encoded by single
CC   nucleotide polymorphisms (SNP). The variant peptides and proteins can be
CC   used in assays to determine the biological activity of the protein, to
CC   raise antibodies, as a reagent in assays designed to quantitatively
CC   determine levels of the protein in biological fluids, to identify
CC   compounds that modulate receptor activity and to screen compounds for the
CC   ability to stimulate or inhibit interaction between the receptor protein
CC   and a target molecule that normally interacts with the receptor protein
CC   e.g. oestrogen. The antibody can be used to isolate the protein, to
CC   assess expression in disease states e.g. cardiovascular disease and
CC   autoimmune disease (e.g. systemic lupus erythematosus, arthritis,
CC   rheumatism and osteoarthritis), osteoporosis, breast cancer and
CC   endometrial cancer. In addition the antibodies can be used in
CC   pharmacogenomic analysis and inhibiting protein function, e.g. blocking
CC   the binding of the oestrogen receptor protein to a binding partner such
CC   as a ligand. The nucleic acids encoding the proteins can be used as
CC   probes, primers, chemical intermediates and in biological assays. The
CC   present sequence is a 5' splice donor site from the human ERbeta gene
XX
SQ   Sequence 20 BP; 15 A; 1 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTT 2174
              ||| ||  ||||||| ||||
Db         20 TTTCTTCTTCCTTTTGTTTT 1


RESULT 4994
AAC67698
ID   AAC67698 standard; DNA; 20 BP.
XX
AC   AAC67698;
XX
DT   16-FEB-2001  (first entry)
```

```
XX
DE   Oligonucleotide #9 ISIS #116877.
XX
KW   Antiinflammatory; cytostatic; antibacterial; methionine aminopeptidase 2;
KW   inhibitor; MetAP2; eukaryotic initiation factor associated protein; p67;
KW   eIF-2; protein synthesis; antisense oligonucleotide; infection; human;
KW   inflammation; tumour; phosphorothioate; 2-methoxyethyl wing; ss.
XX
OS   Homo sapiens.
XX
PN   US6136604-A.
XX
PD   24-OCT-2000.
XX
PF   27-OCT-1999;   99US-00428584.
XX
PR   27-OCT-1999;   99US-00428584.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Wyatt J;
XX
DR   WPI; 2001-030942/04.
XX
PT   New antisense compounds which specifically hybridize with and inhibit
PT   human methionine aminopeptidase 2 expression, useful for treating
PT   methionine aminopeptidase 2 related disorders and preventing inflammation
PT   or tumor formation.
XX
PS   Example 15; Col 41-42; 39pp; English.
XX
CC   Methionine aminopeptidase 2 (also known as MetAP2 and eukaryotic
CC   initiation factor [eIF-2] associated protein, p67) is a cellular
CC   glycoprotein that promotes protein synthesis in the presence of active
CC   eIF-2 kinases by protecting the eIF-2 alpha subunit from phosphorylation.
CC   The present invention relates to antisense oligonucleotides (AAC67690-
CC   C67767) which inhibit human methionine aminopeptidase 2 coding sequence
CC   expression (see AAC67683). The present sequence is one such antisense
CC   oligonucleotide. The present sequence may be used for treating a patient
CC   suspected of having or being prone to a disease or condition associated
CC   with expression of MetAP2. In addition, the present sequence can also be
CC   used as research reagents, diagnostics and to distinguish between
CC   functions of various members of a biological pathway. The antisense
CC   oligonucleotide may further be used prophylactically, e.g. to prevent or
CC   delay infection, inflammation or tumour formation. Note: the present
CC   sequence may have a phosphorothioate backbone and 2-methoxyethyl (2'-MOE)
CC   wings
XX
SQ   Sequence 20 BP; 0 A; 5 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2160 TTCTCCTTTTTTTTTTTTT 2179
              |||| |||||| || || ||
Db          1 TTCTTCTTTTTCTTCTTCTT 20


RESULT 4995
AAD11966/c
ID   AAD11966 standard; DNA; 20 BP.
XX
AC   AAD11966;
XX
DT   25-SEP-2001  (first entry)
XX
DE   Human PTP1B antisense oligonucleotide (ISIS# 107775).
XX
KW   Human; PTP1B; protein phosphatase 1B inhibitor; antisense; gene therapy;
KW   infection; inflammation; tumour; prophylaxis; phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   4
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   8
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   11
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   13
FT                   /*tag=  g
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   18. .19
FT                   /*tag=  h
FT                   /mod_base= m5c
XX
PN   US6261840-B1.
XX
PD   17-JUL-2001.
XX
PF   18-JAN-2000; 2000US-00487368.
XX
PR   18-JAN-2000; 2000US-00487368.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM,  Wyatt J;
XX
DR   WPI; 2001-432181/46.
XX
PT   New antisense compounds capable of modulating expression of human protein
PT   phosphatase 1B, useful for diagnosis, prophylaxis and treatment of
PT   diseases associated with expression of protein phosphatase.
XX
PS   Claim 1; Col 42; 71pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding protein
CC   phosphatase 1B (PTP1B) to modulate its expression. The antisense
CC   compounds are useful for diagnosis, prophylaxis and treatment of diseases
CC   associated with the expression of PTP1B, to prevent or delay infection,
CC   inflammation and tumour formation and as a research reagent. The PTP1B
CC   DNA is useful in gene therapy. The present sequence is an antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to human PTP1B to inhibit its expression
XX
SQ   Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        903 AAGTACAGAGGCGACTGTCC 922
              | |||||||| || | ||||
Db         20 AGGTACAGAGACGTCAGTCC 1


RESULT 4996
```

```
AAD12126/c
ID   AAD12126 standard; DNA; 20 BP.
XX
AC   AAD12126;
XX
DT   25-SEP-2001 (first entry)
XX
DE   Rat PTP1B antisense oligonucleotide (ISIS# 106409).
XX
KW   Rat; PTP1B; protein phosphatase 1B inhibitor; antisense; gene therapy;
KW   infection; inflammation; tumour; prophylaxis; phosphorothioate; ss.
XX
OS   Rattus norvegicus.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag= a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag= b
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   3. .4
FT                   /*tag= d
FT                   /mod_base= m5c
FT   modified_base   13
FT                   /*tag= e
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag= c
FT                   /mod_base= OTHER
FT                   /note= "Methoxyethyl residues"
FT   modified_base   16. .17
FT                   /*tag= f
FT                   /mod_base= m5c
XX
PN   US6261840-B1.
XX
PD   17-JUL-2001.
XX
PF   18-JAN-2000; 2000US-00487368.
XX
PR   18-JAN-2000; 2000US-00487368.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM, Wyatt J;
XX
DR   WPI; 2001-432181/46.
XX
PT   New antisense compounds capable of modulating expression of human protein
PT   phosphatase 1B, useful for diagnosis, prophylaxis and treatment of
PT   diseases associated with expression of protein phosphatase.
XX
PS   Claim 1; Col 51-52; 71pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding protein
CC   phosphatase 1B (PTP1B) to modulate its expression. The antisense
CC   compounds are useful for diagnosis, prophylaxis and treatment of diseases
CC   associated with the expression of PTP1B, to prevent or delay infection,
CC   inflammation and tumour formation and as a research reagent. The PTP1B
CC   DNA is useful in gene therapy. The present sequence is an antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to rat PTP1B to inhibit its expression
XX
SQ   Sequence 20 BP; 5 A; 5 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1590 ACTGGGAACCCCTCCTGGCC 1609
              ||||| | ||| ||||||  |
Db         20 ACTGGAAGCCCTTCCTGGTC 1


RESULT 4997
AAF24291
ID   AAF24291 standard; DNA; 20 BP.
XX
AC   AAF24291;
XX
DT   03-APR-2001  (first entry)
XX
DE   Complementary nucleic acid detection method related sequence #6.
XX
KW   Complementary nucleic acid; gene analysis; polymorphism; variation;
KW   DNA chip; primer; ss.
XX
OS   Unidentified.
XX
PN   EP1065278-A2.
XX
PD   03-JAN-2001.
XX
PF   07-JUN-2000; 2000EP-00112235.
XX
PR   07-JUN-1999;   99JP-00159339.
XX
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
XX
PI   Makino Y,  Abe Y,  Ogawa M,  Takagi M,  Takenaka S,  Yamashita K;
XX
DR   WPI; 2001-140003/15.
XX
PT   Determining complementarity of nucleotide fragment for gene analysis, by
PT   comparing flow of electric current from or to electroconductive substrate
PT   through DNA fragment, with reference obtained from its complement.
XX
PS   Example 1; Page 13; 28pp; English.
XX
CC   The present invention provides a method for analysing a nucleic acid
CC   strand to determine the degree of complementarity between two sequences.
CC   This involves the measurement of an electric current along the annealed
CC   strands compared to a standard. This is useful in the analysis of genetic
CC   polymorphisms and variation between genes
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              ||||||||    ||||||||
Db          1 TTTTTTTTAAAATTTTTTTT 20


RESULT 4998
AAH47246
ID   AAH47246 standard; DNA; 20 BP.
XX
AC   AAH47246;
XX
DT   30-NOV-2001  (first entry)
XX
DE   Human C-PLACE1003238 gene related primer CP38-3.
XX
KW   C-PLACE1003238; guanosine triphosphate binding protein coupled receptor;
KW   cytostatic; nootropic; neuroprotective; brain disease; PCR primer; ss.
XX
OS   Homo sapiens.
XX
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```
PN   WO200109322-A1.
XX
PD   08-FEB-2001.
XX
PF   28-JUL-2000; 2000WO-JP005069.
XX
PR   29-JUL-1999;   99JP-00248036.
PR   27-AUG-1999;   99JP-00300253.
PR   18-OCT-1999;   99US-0159590P.
PR   11-JAN-2000; 2000JP-00118776.
PR   17-FEB-2000; 2000US-0183322P.
PR   02-MAY-2000; 2000JP-00183767.
XX
PA   (HELI-) HELIX RES INST.
XX
PI   Ota T,  Isogai T,  Nishikawa T,  Hayashi K,  Saito K,  Yamamoto J;
PI   Ishii S,  Sugiyama T,  Wakamatsu A,  Nagai K,  Otsuki T,  Kishimoto T;
PI   Yano K,  Kanzaki K,  Inoue Y;
XX
DR   WPI; 2001-557266/62.
XX
PT   New gene encoding guanosine triphosphate binding protein coupled
PT   receptor, and the protein and antibodies to it, for diagnosing and
PT   treating disease such as brain disease.
XX
PS   Example 8; Page 33; 65pp; Japanese.
XX
CC   The invention relates to a gene C-PLACE1003238 encoding a guanosine
CC   triphosphate binding protein coupled receptor. The protein can be
CC   expressed by standard recombinant methodology. The protein is useful in
CC   the diagnosis, prediction and treatment of disease associated with
CC   disorders of C-PLACE1003238 protein, and may be useful in brain disease
CC   and cancers, as the expression pattern was different in Alzheimer's
CC   disease, cancers, and normal tissue. The new materials are useful for
CC   developing diagnostics and treatment agents. The present sequence
CC   represents a PCR primer used during the course of the invention
XX
SQ   Sequence 20 BP; 8 A; 5 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1119 CCTATGTCTGTGAAGCCGAA 1138
              | || ||| || ||||||||
Db          1 CATAAGTCAGTCAAGCCGAA 20


RESULT 4999
AAC82915
ID   AAC82915 standard; DNA; 20 BP.
XX
AC   AAC82915;
XX
DT   21-MAR-2001  (first entry)
XX
DE   Human beta-actin derived oligonucleotide #8.
XX
KW   Recognition system; screening; identification; pharmaceutical; toxin;
KW   plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW   herbicide; fungicide; pesticide; beta-actin; human; ss.
XX
OS   Homo sapiens.
XX
PN   DE19923966-A1.
XX
PD   30-NOV-2000.
XX
PF   25-MAY-1999;   99DE-01023966.
XX
PR   25-MAY-1999;   99DE-01023966.
XX
PA   (AVET ) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI   Boekenkamp D,  Hoppe H,  Burgstaller P;
XX
DR   WPI; 2001-050938/07.
XX
PT   Recognition system, e.g. for identifying nucleic acids, comprises at
PT   least one recognition unit comprising a region with a defined structure
PT   adjacent to a region with a randomized structure.
XX
PS   Example; Fig 1; 8pp; German.
XX
CC   This invention describes a novel recognition system comprising at least 1
CC   recognition unit bound to a support, each recognition unit comprising a
CC   region A with a defined structure adjacent to a region B with a
CC   randomized structure. The recognition system is useful for screening,
CC   identifying, or characterizing at least 1 component of a sample,
CC   especially nucleic acids and/or proteins, and for screening for and/or
CC   identifying cellular or synthetic binding partners, preferably proteins,
CC   peptides, nucleic acids, chemical agents, preferably organic compounds,
CC   pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC   teratogens, herbicides, fungicides or pesticides
XX
SQ   Sequence 20 BP; 1 A; 0 C; 4 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2173 TTTTTTTTTTTTTTAACTTT 2192
              ||||||||||||| |  | |
Db          1 TTTTTTTTTTTTTGAGGTGT 20


RESULT 5000
AAC82915/c
ID   AAC82915 standard; DNA; 20 BP.
XX
AC   AAC82915;
XX
DT   21-MAR-2001  (first entry)
XX
DE   Human beta-actin derived oligonucleotide #8.
XX
KW   Recognition system; screening; identification; pharmaceutical; toxin;
KW   plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW   herbicide; fungicide; pesticide; beta-actin; human; ss.
XX
OS   Homo sapiens.
XX
PN   DE19923966-A1.
XX
PD   30-NOV-2000.
XX
PF   25-MAY-1999;   99DE-01023966.
XX
PR   25-MAY-1999;   99DE-01023966.
XX
PA   (AVET ) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI   Boekenkamp D,  Hoppe H,  Burgstaller P;
XX
DR   WPI; 2001-050938/07.
XX
PT   Recognition system, e.g. for identifying nucleic acids, comprises at
PT   least one recognition unit comprising a region with a defined structure
PT   adjacent to a region with a randomized structure.
XX
PS   Example; Fig 1; 8pp; German.
XX
CC   This invention describes a novel recognition system comprising at least 1
CC   recognition unit bound to a support, each recognition unit comprising a
CC   region A with a defined structure adjacent to a region B with a
CC   randomized structure. The recognition system is useful for screening,
```

```
CC   identifying, or characterizing at least 1 component of a sample,
CC   especially nucleic acids and/or proteins, and for screening for and/or
CC   identifying cellular or synthetic binding partners, preferably proteins,
CC   peptides, nucleic acids, chemical agents, preferably organic compounds,
CC   pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC   teratogens, herbicides, fungicides or pesticides
XX
SQ   Sequence 20 BP; 1 A; 0 C; 4 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAA 2798
              | |  | ||||||||||||||
Db         20 ACACCTCAAAAAAAAAAAAA 1


RESULT 5001
AAF91308/c
ID   AAF91308 standard; DNA; 20 BP.
XX
AC   AAF91308;
XX
DT   04-MAY-2001  (first entry)
XX
DE   Human E2F transcription factor 1 antisense oligonucleotide #14.
XX
KW   Antisense; E2F transcription factor 1; human; infection; inflammation;
KW   tumour; ss.
XX
OS   Homo sapiens.
XX
PN   US6187587-B1.
XX
PD   13-FEB-2001.
XX
PF   02-MAR-2000; 2000US-00517584.
XX
PR   02-MAR-2000; 2000US-00517584.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Popoff I,  Brown-Driver VL,  Cowsert LM;
XX
DR   WPI; 2001-190981/19.
XX
PT   Antisense compound capable of inhibiting the expression of E2F
PT   transcription factor 1, useful for preventing or delaying infection,
PT   inflammation or tumor formation.
XX
PS   Claim 1; Col 42; 40pp; English.
XX
CC   The present invention relates to antisense compounds up to 30 nucleobases
CC   in length targeted to a E2F transcription factor 1 The invention is
CC   useful for inhibiting the expression of E2F transcription factor 1 in
CC   cells or tissues. The antisense oligonucleotides may also be used as a
CC   research agent and to prevent infection, inflammation or tumours
XX
SQ   Sequence 20 BP; 2 A; 9 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        646 CCTGGCCGAGAACCTGGGGC 665
              |||||||||| |   ||||
Db         20 CCTGGCCGAGAGCAGTGGGC 1


RESULT 5002
AAD09641
ID   AAD09641 standard; DNA; 20 BP.
XX
AC   AAD09641;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human PKA C-alpha chimeric antisense oligonucleotide (ISIS# 102614).
XX
KW   Human; protein kinase A; PKA catalytic subunit C-alpha inhibitor;
KW   therapy; infection; inflammation; tumour; prophylaxis; antisense;
KW   phosphorothioate backbone; chimeric; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "Methoxyethyl residues"
FT   modified_base    1. .3
FT                    /*tag=  c
FT                    /mod_base= m5c
FT   misc_feature     6. .15
FT                    /*tag=  d
FT                    /note= "Central gap region"
FT   modified_base    16. .20
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "Methoxyethyl residues"
FT   modified_base    17
FT                    /*tag=  f
FT                    /mod_base= m5c
XX
PN   US6248586-B1.
XX
PD   19-JUN-2001.
XX
PF   17-DEC-1999;   99US-00467082.
XX
PR   17-DEC-1999;   99US-00467082.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-407321/43.
XX
PT   Antisense oligonucleotides for inhibiting the expression of the human
PT   protein kinase A catalytic subunit C-alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 44; 35pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding human protein
CC   kinase A (PKA) catalytic subunit C-alpha to modulate (inhibit) its
CC   expression. The antisense compounds are useful for diagnostics,
CC   therapeutics, prophylaxis and as research reagents or kits. The antisense
CC   oligonucleotides are useful for treating human, suspected of having or
CC   being prone to a disease or condition associated with the expression of
CC   PKA catalytic subunit C-alpha. In particular, the antisense
CC   oligonucleotides are useful for preventing, delaying or treating
CC   infection, inflammation and tumour formation. They are also useful in
CC   antisense therapy. The present sequence is a chimeric antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to the start codon of human PKA catalytic subunit C-alpha to inhibit its
CC   expression
```

```
XX
SQ   Sequence 20 BP; 1 A; 9 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         45 CCGCGCGCGGCGGGGGCGGC 64
              ||   |||||||| ||||||
Db          1 CCCATCGCGGCGGCGGCGGC 20


RESULT 5003
AAS08796
ID   AAS08796 standard; DNA; 20 BP.
XX
AC   AAS08796;
XX
DT   26-SEP-2001  (first entry)
XX
DE   Human PD-ABC form 1 DNA exon 39 3' splice site.
XX
KW   PD-ATP-binding cassette; PD-ABC; chromosome 19p13.3; spleen; thymus; ds;
KW   peripheral blood leukocyte; bone marrow; lymph node; dyslipidaemia;
KW   cardiovascular disorder; inflammatory disorder; abnormal calcium flux;
KW   epilepsy; coronary artery disease; Tangier's disease; atherosclerosis;
KW   familial high-density lipoprotein deficiency; fatty liver disease;
KW   atherosclerosis; diabetes; insulin resistance; obesity; drug screening;
KW   alcoholism; retinal degeneration; hypertension; vascular disease.
XX
OS   Homo sapiens.
XX
PN   WO200153490-A1.
XX
PD   26-JUL-2001.
XX
PF   23-JAN-2001; 2001WO-US002191.
XX
PR   24-JAN-2000; 2000US-0177889P.
PR   30-JUN-2000; 2000US-0215405P.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Johns MA,  Tafuri SR,  Wang M;
XX
DR   WPI; 2001-442259/47.
XX
PT   New Human PD-ABC DNA molecules and proteins for diagnosis and treatment
PT   of dyslipidemia, epilepsy and diseases related to abnormal calcium flux.
XX
PS   Disclosure; Page 38; 77pp; English.
XX
CC   The sequence represents a splice site within a DNA molecule encoding
CC   human PD-ATP-binding cassette (PD-ABC) protein. PD-ABC maps to chromosome
CC   19p13.3 and is expressed in various tissues including spleen, thymus,
CC   peripheral blood leukocytes, bone marrow and lymph nodes. The PD-ABC DNA
CC   molecules and proteins are used to diagnose and treat cardiovascular
CC   disorders, inflammatory disorders, dyslipidaemia, epilepsy, diseases
CC   related to abnormal calcium flux, coronary artery disease, Tangier's
CC   disease, familial high-density lipoprotein deficiency, atherosclerosis,
CC   diabetes, fatty liver disease, insulin resistance, obesity, alcoholism,
CC   retinal degeneration, hypertension and vascular disease. The sequences
CC   are also used in drug screening assays
XX
SQ   Sequence 20 BP; 3 A; 5 C; 8 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1453 CCCTGGAGACCAGAGTCCAG 1472
              |||||| ||   ||||||||
Db          1 CCCTGGTGAGGTGAGTCCAG 20


RESULT 5004
AAS08736
ID   AAS08736 standard; DNA; 20 BP.
XX
AC   AAS08736;
XX
DT   26-SEP-2001  (first entry)
XX
DE   Human PD-ABC form 1 DNA exon 9 3' splice site.
XX
KW   PD-ATP-binding cassette; PD-ABC; chromosome 19p13.3; spleen; thymus; ds;
KW   peripheral blood leukocyte; bone marrow; lymph node; dyslipidaemia;
KW   cardiovascular disorder; inflammatory disorder; abnormal calcium flux;
KW   epilepsy; coronary artery disease; Tangier's disease; atherosclerosis;
KW   familial high-density lipoprotein deficiency; fatty liver disease;
KW   atherosclerosis; diabetes; insulin resistance; obesity; drug screening;
KW   alcoholism; retinal degeneration; hypertension; vascular disease.
XX
OS   Homo sapiens.
XX
PN   WO200153490-A1.
XX
PD   26-JUL-2001.
XX
PF   23-JAN-2001; 2001WO-US002191.
XX
PR   24-JAN-2000; 2000US-0177889P.
PR   30-JUN-2000; 2000US-0215405P.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Johns MA,  Tafuri SR,  Wang M;
XX
DR   WPI; 2001-442259/47.
XX
PT   New Human PD-ABC DNA molecules and proteins for diagnosis and treatment
PT   of dyslipidemia, epilepsy and diseases related to abnormal calcium flux.
XX
PS   Disclosure; Page 37; 77pp; English.
XX
CC   The sequence represents a splice site within a DNA molecule encoding
CC   human PD-ATP-binding cassette (PD-ABC) protein. PD-ABC maps to chromosome
CC   19p13.3 and is expressed in various tissues including spleen, thymus,
CC   peripheral blood leukocytes, bone marrow and lymph nodes. The PD-ABC DNA
CC   molecules and proteins are used to diagnose and treat cardiovascular
CC   disorders, inflammatory disorders, dyslipidaemia, epilepsy, diseases
CC   related to abnormal calcium flux, coronary artery disease, Tangier's
CC   disease, familial high-density lipoprotein deficiency, atherosclerosis,
CC   diabetes, fatty liver disease, insulin resistance, obesity, alcoholism,
CC   retinal degeneration, hypertension and vascular disease. The sequences
CC   are also used in drug screening assays
XX
SQ   Sequence 20 BP; 4 A; 10 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        607 CCTGCTGCTGCCCCACGCAC 626
              | |||||| ||||| | |||
Db          1 CATGCTGCAGCCCCGCACAC 20


RESULT 5005
AAS08827
ID   AAS08827 standard; DNA; 20 BP.
XX
AC   AAS08827;
XX
DT   26-SEP-2001  (first entry)
XX
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DE   Human PD-ABC form 2 DNA exon 9 3' splice site.
XX
KW   PD-ATP-binding cassette; PD-ABC; chromosome 19p13.3; spleen; thymus; ds;
KW   peripheral blood leukocyte; bone marrow; lymph node; dyslipidaemia;
KW   cardiovascular disorder; inflammatory disorder; abnormal calcium flux;
KW   epilepsy; coronary artery disease; Tangier's disease; atherosclerosis;
KW   familial high-density lipoprotein deficiency; fatty liver disease;
KW   atherosclerosis; diabetes; insulin resistance; obesity; drug screening;
KW   alcoholism; retinal degeneration; hypertension; vascular disease.
XX
OS   Homo sapiens.
XX
PN   WO200153490-A1.
XX
PD   26-JUL-2001.
XX
PF   23-JAN-2001; 2001WO-US002191.
XX
PR   24-JAN-2000; 2000US-0177889P.
PR   30-JUN-2000; 2000US-0215405P.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Johns MA,  Tafuri SR,  Wang M;
XX
DR   WPI; 2001-442259/47.
XX
PT   New Human PD-ABC DNA molecules and proteins for diagnosis and treatment
PT   of dyslipidemia, epilepsy and diseases related to abnormal calcium flux.
XX
PS   Disclosure; Page 39; 77pp; English.
XX
CC   The sequence represents a splice site within a DNA molecule encoding
CC   human PD-ATP-binding cassette (PD-ABC) protein. PD-ABC maps to chromosome
CC   19p13.3 and is expressed in various tissues including spleen, thymus,
CC   peripheral blood leukocytes, bone marrow and lymph nodes. The PD-ABC DNA
CC   molecules and proteins are used to diagnose and treat cardiovascular
CC   disorders, inflammatory disorders, dyslipidaemia, epilepsy, diseases
CC   related to abnormal calcium flux, coronary artery disease, Tangier's
CC   disease, familial high-density lipoprotein deficiency, atherosclerosis,
CC   diabetes, fatty liver disease, insulin resistance, obesity, alcoholism,
CC   retinal degeneration, hypertension and vascular disease. The sequences
CC   are also used in drug screening assays
XX
SQ   Sequence 20 BP; 4 A; 10 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        607 CCTGCTGCTGCCCCACGCAC 626
              | |||||| ||||| | |||
Db          1 CATGCTGCAGCCCCGCACAC 20


RESULT 5006
AAI98550
ID   AAI98550 standard; DNA; 20 BP.
XX
AC   AAI98550;
XX
DT   30-NOV-2001  (first entry)
XX
DE   Genomic DNA methylation state detecting oligonucleotide SEQ ID 389.
XX
KW   Peptide nucleic acid; PNA; detection; methylation; cytosine;
KW   gene expression regulation; ss.
XX
OS   Unidentified.
XX
PN   WO200168910-A2.
XX
PD   20-SEP-2001.
XX
PF   15-MAR-2001; 2001WO-DE001089.
XX
PR   15-MAR-2000; 2000DE-01013847.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Berlin K;
XX
DR   WPI; 2001-596913/67.
XX
PT   Parallel detection of methylation in genomic DNA where DNA is chemically
PT   modified, fragmented, amplified and hybridized to probes, useful to
PT   investigate gene expression regulation.
XX
PS   Example 2; Page 98; 116pp; German.
XX
CC   This sequence represents a novel method for the parallel detection of
CC   cytosine methylation in genomic DNA comprising: (a) chemically treating a
CC   DNA sample so that 5' unmethylated cytosine is converted to
CC   uracil/thymidine; (b) amplifying the sample up to 10 different fragments,
CC   each less than 2000 base pairs (bp) using synthetic primers; (c)
CC   hybridizing the amplified sequence to an oligonucleotide or PNA-oligomer
CC   containing at least two sequences fully defined in the specification and
CC   (d) detecting hybridization. The invention is used in the investigation
CC   of regulation of gene expression by methylation. AAI98162-AAI98557
CC   represents oligonucleotide sequences used to illustrate the method of the
CC   invention
XX
SQ   Sequence 20 BP; 5 A; 0 C; 6 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2695 ATTTGGAATTGAACTCTCTG 2714
              ||||||| ||||| | | ||
Db          1 ATTTGGAGTTGAAGTATTTG 20


RESULT 5007
AAF75050/c
ID   AAF75050 standard; DNA; 20 BP.
XX
AC   AAF75050;
XX
DT   08-MAY-2001  (first entry)
XX
DE   Primer #22.
XX
KW   5-hydroxy tryptamine receptor 1A; HTR1A; polymorphism; Tourette's;
KW   neuropsychiatric; ss.
XX
OS   Homo sapiens.
XX
PN   WO200110884-A1.
XX
PD   15-FEB-2001.
XX
PF   01-AUG-2000; 2000WO-US040519.
XX
PR   06-AUG-1999;   99US-0147711P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Denton RR,  Kliem SE,  Nandabalan K,  Stephens JC;
XX
DR   WPI; 2001-191514/19.
XX
PT   New 5-hydroxy tryptamine receptor 1A gene variants for studying
PT   expression and biological function of the gene and for developing drugs
PT   targeting 5-hydroxy tryptamine receptor 1A protein.
XX
```

```
PS   Example 1; Page 34; 64pp; English.
XX
CC   The present invention relates to 5-hydroxy tryptamine receptor 1A (HTR1A)
CC   gene. HTR1A-encoding polynucleotides containing one or more of the novel
CC   polymorphic sites are useful in studying the expression and biological
CC   function of HTR1A, as well as in developing drugs targeting this protein.
CC   In addition, information on the combinations of polymorphisms in the
CC   HTR1A gene may have diagnostic and forensic applications. A polymorphic
CC   variant of HTR1A is useful in studying the effect of the variation on the
CC   biological activity of HTR1A as well as studying the binding affinity of
CC   candidate drugs targeting HTR1A for the treatment of neuropsychiatric
CC   diseases and Tourette's syndrome
XX
SQ   Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        803 CTGGTGGGGGCCGTAATGAA 822
              ||| |||| ||| |||| ||
Db         20 CTGTTGGGCGCCATAATCAA 1


RESULT 5008
AAS12922
ID   AAS12922 standard; DNA; 20 BP.
XX
AC   AAS12922;
XX
DT   04-DEC-2001  (first entry)
XX
DE   Human BCMP 11 cDNA sense RT-PCR primer.
XX
KW   BCMP 11; antiproliferative; cytostatic; breast cancer; mammal; human; ss;
KW   monkey; ape; cat; dog; cow; horse; rabbit; vaccine; PCR primer.
XX
OS   Homo sapiens.
XX
PN   WO200163289-A1.
XX
PD   30-AUG-2001.
XX
PF   21-FEB-2001; 2001WO-GB000730.
XX
PR   25-FEB-2000; 2000GB-00004576.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Boyd RS,  Stamps AC,  Terrett JA,  Tyson KL;
XX
DR   WPI; 2001-514828/56.
XX
PT   Diagnosis of breast cancer for the screening and detection of BCMP 11
PT   comprises detection and quantification of BCMP 11 polypeptide and nucleic
PT   acid.
XX
PS   Example 2; Page 49; 66pp; English.
XX
CC   The invention relates to a method of screening for and diagnosing breast
CC   cancer in a mammalian subject. This comprises detecting or quantifying a
CC   polypeptide, BCMP 11, or its associated DNA sequence in the subject,
CC   which may be a monkey, ape, cat, dog, cow, horse or rabbit, but
CC   preferably a human. BCMP 11 polypeptides and polynucleotides are useful
CC   for the treatment or prophylaxis of breast cancer. Antibodies which bind
CC   to BCMP 11 peptides are useful for the preparation of vaccines and are
CC   discovered through screening or monitoring for compounds that modulate
CC   BCMP 11 expression. Metastatic breast cancer cells can be identified by
CC   determining the presence or absence of BCMP 11 DNA or by studying the
CC   expression level of the protein. This sequence represents a PCR primer
CC   used to analyse the distribution of BCMP 11 mRNA in normal human tissues
CC   and in breast cancer cell lines by RT-PCR
XX
SQ   Sequence 20 BP; 5 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        849 CTGGAAGATTGTCGCTCCTC 868
              ||||| |||||||  | |||
Db          1 CTGGAGGATTGTCAATACTC 20


RESULT 5009
AAH62087
ID   AAH62087 standard; DNA; 20 BP.
XX
AC   AAH62087;
XX
DT   10-SEP-2001  (first entry)
XX
DE   PDGF B hairpin/hammerhead ribozyme recognition site SEQ ID NO:4511.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US029500.
XX
PR   26-OCT-1999;   99US-0161532P.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using ribozymes
PT   that cleave RNA encoding cytokines involved in inflammation, matrix
PT   metalloproteinases, growth factors and cell-cycle dependent kinases.
XX
PS   Example 1; Page 25; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative skin
CC   diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
```

```
CC   exemplification of the present invention
XX
SQ   Sequence 20 BP; 3 A; 8 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        360 AGCAGCTGGCCTACTCCCAG 379
              | |||| || || |||||||
Db          1 ATCAGCGGGTCTCCTCCCAG 20


RESULT 5010
AAS43046
ID   AAS43046 standard; DNA; 20 BP.
XX
AC   AAS43046;
XX
DT   17-DEC-2001  (first entry)
XX
DE   Breast cancer-associated membrane protein (BCMP) 11 cDNA PCR primer #3.
XX
KW   Breast cancer-associated membrane protein; BCMP; cytostatic; ss;
KW   gene therapy; PCR primer.
XX
OS   Homo sapiens.
XX
PN   WO200162784-A2.
XX
PD   30-AUG-2001.
XX
PF   21-FEB-2001; 2001WO-GB000748.
XX
PR   25-FEB-2000; 2000GB-00004576.
PR   21-DEC-2000; 2000GB-00031341.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Boyd RS,  Stamps AC,  Terrett JA;
XX
DR   WPI; 2001-557697/62.
XX
PT   Screening, diagnosis, prognosis, prevention and treatment of breast
PT   cancer in a subject, by using breast cancer-associated membrane proteins
PT   identified in membrane protein extracts of cultured human mammary cell
PT   lines.
XX
PS   Example 3; Page 107; 136pp; English.
XX
CC   Sequences AAS43037-AAS43059 represent DNA encoding breast cancer-
CC   associated membrane proteins (BCMPs) and PCR primers specific to the DNA.
CC   The BCMPs and their associated polynucleotides are used for treating or
CC   preventing breast cancer and also in prophylaxis and screening for breast
CC   cancer. The presence of or a predisposition to the disease can be
CC   detected by screening for BCMP expression and/or activity since the
CC   peptides may induce an immune response. The peptides are also useful for
CC   monitoring the effectiveness of breast cancer therapy
XX
SQ   Sequence 20 BP; 5 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        849 CTGGAAGATTGTCGCTCCTC 868
              ||||| |||||||  | |||
Db          1 CTGGAGGATTGTCAATACTC 20


RESULT 5011
AAS29454/c
ID   AAS29454 standard; DNA; 20 BP.
XX
AC   AAS29454;
XX
DT   21-NOV-2001  (first entry)
XX
DE   Human mdm2 antisense oligonucleotide 31606.
XX
KW   Human; mdm2; hyperproliferative disorder; cancer; psoriasis;
KW   atherosclerosis; tumour; cytostatic; anti psoriatic;
KW   anti arteriosclerotic; vasotropic; antisense; phosphorothioate; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "OTHER= All phosphorothioate linkages,
FT                    additionally bases 1-6 and bases 15-20 are 2'-O-
FT                    methoxyethyl bases, and bases 7-14 are deoxynucleotides"
XX
PN   US2001016575-A1.
XX
PD   23-AUG-2001.
XX
PF   02-JAN-2001; 2001US-00752983.
XX
PR   26-MAR-1998;   98US-00048810.
PR   26-MAR-1999;   99US-00280805.
XX
PA   (MIRA/) MIRAGLIA L J.
PA   (NERO/) NERO P.
PA   (GRAH/) GRAHAM M J.
PA   (MONI/) MONIA B P.
PA   (COWS/) COWSERT L M.
XX
PI   Miraglia LJ,  Nero P,  Graham MJ,  Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-535565/59.
XX
PT   An antisense compound, useful for treating e.g. cancer, comprises
PT   nucleobases targeted a region (e.g. translation termination codon region)
PT   of a nucleic acid encoding human mdm2.
XX
PS   Example 9; Page 17; 81pp; English.
XX
CC   The present invention relates to antisense compounds, 8-30 nucleobases in
CC   length targeted to the 5' untranslated region, translation termination
CC   codon region, 3' untranslated region, coding region or translation start
CC   site of a nucleic acid encoding human mdm2, where the antisense compound
CC   modulates the expression of human mdm2. The antisense oligonucleotides of
CC   the invention are useful for encoding human mdm2 and for inhibiting the
CC   expression of human mdm2. They may be used for treating an animal having
CC   a disease or condition associated with amplification of mdm2 gene or
CC   overexpression of mdm2 e.g. a hyperproliferative disorder such as cancer
CC   (blood, brain, breast, lung, or a soft tissue cancer) and psoriasis,
CC   fibrosis, atherosclerosis or restenosis, tumours, colorectal carcinoma
CC   and chronic myelogenous leukemia. The antisense compound may be
CC   administered with a chemotherapeutic agent to overcome drug resistance.
CC   The antisense compound reduces hyperproliferation of human cells. The
CC   method, which involves the use of the antisense compound, is also useful
CC   for detecting the role of mdm2 expression in various cell functions and
CC   physiological processes and useful in both clinical research and
CC   diagnostic tools. AAS29242-AAS29507 represent the human mdm2 antisense
CC   oligonucleotides of the present invention
XX
SQ   Sequence 20 BP; 8 A; 1 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2520 TTTATTCATATATATACAGG 2539
```

```
                  |||||||| ||||||  | |
Db          20 TTTATTCACATATATCAAAG 1


RESULT 5012
AAH80587
ID   AAH80587 standard; cDNA; 20 BP.
XX
AC   AAH80587;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 551.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 65; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2159 TTTCTCCTTTTTTTTTTTTT 2178
              || ||  |||||| ||||||
Db          1 TTACTGATTTTTTCTTTTTT 20


RESULT 5013
AAH80390/c
ID   AAH80390 standard; cDNA; 20 BP.
XX
AC   AAH80390;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 354.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 59; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 7 A; 2 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1818 AAGTTTTAGAATCTTTTAAA 1837
              || | |||||  ||||||||
Db         20 AAATCTTAGAGCCTTTTAAA 1


RESULT 5014
AAH80810/c
ID   AAH80810 standard; cDNA; 20 BP.
XX
AC   AAH80810;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 774.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
```

PA (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters.
XX
PS Example 2; Col 71; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
CC (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 2 A; 3 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2784 TGAAAAAAAAAAAAAAAAAA 2803
||| | || |||||| ||||
Db 20 TGACAGAAGAAAAAATAAAA 1

RESULT 5015
AAH80812/c
ID AAH80812 standard; cDNA; 20 BP.
XX
AC AAH80812;
XX
DT 11-SEP-2003 (revised)
DT 19-SEP-2001 (first entry)
XX
DE Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 776.
XX
KW Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW disease diagnosis; ss.
XX
OS Human immunodeficiency virus 1.
XX
PN US6251588-B1.
XX
PD 26-JUN-2001.
XX
PF 10-FEB-1998; 98US-00021701.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters.
XX
PS Example 2; Col 71; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
CC (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2782 ATTGAAAAAAAAAAAAAAAA 2801
||||| | || |||||| ||
Db 20 ATTGACAGAAGAAAAAATAA 1

RESULT 5016
AAH80811/c
ID AAH80811 standard; cDNA; 20 BP.
XX
AC AAH80811;
XX
DT 11-SEP-2003 (revised)
DT 19-SEP-2001 (first entry)
XX
DE Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 775.
XX
KW Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW disease diagnosis; ss.
XX
OS Human immunodeficiency virus 1.
XX
PN US6251588-B1.
XX
PD 26-JUN-2001.
XX
PF 10-FEB-1998; 98US-00021701.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters.
XX
PS Example 2; Col 71; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
CC (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;

```
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAAA 2802
              |||| | || |||||| |||
Db         20 TTGACAGAAGAAAAAATAAA 1


RESULT 5017
ABA81742
ID   ABA81742 standard; DNA; 20 BP.
XX
AC   ABA81742;
XX
DT   25-JAN-2002  (first entry)
XX
DE   PCR primer KP212.
XX
KW   Aldehyde-dehydrogenase; enzyme; phenanthrene; anthracene; PCR primer;
KW   aromatic dihydrodiol dehydrogenase; aromatic diol oxygenase;
KW   hydratase-aldorase; ss.
XX
OS   Nocardioides sp. KP7.
XX
PN   JP2001245662-A.
XX
PD   11-SEP-2001.
XX
PF   03-MAR-2000; 2000JP-00059523.
XX
PR   03-MAR-2000; 2000JP-00059523.
XX
PA   (KAIY-) KAIYO BIOTECHNOLOGY KENKYUSHO KK.
XX
DR   WPI; 2002-002935/01.
XX
PT   Genes and proteins involved in the upstream of the pathway of degradation
PT   of a polycyclic aromatic compound.
XX
PS   Example 4; Page 7; 47pp; Japanese.
XX
CC   The present invention relates to coding sequences for proteins such as
CC   aromatic dihydrodiol dehydrogenase, aromatic diol oxygenase, hydratase-
CC   aldorase and aldehyde-dehydrogenase (ABA01198-ABA01201 and AAM52344-
CC   AAM52347), which are involved in the degradation of polycyclic aromatic
CC   compounds. The enzymes are useful as reagents for converting the
CC   metabolite intermediates of polycyclic aromatic compounds such as
CC   phenanthrene and anthracene. The present sequence is a PCR primer, which
CC   was used in an example from the present invention
XX
SQ   Sequence 20 BP; 3 A; 9 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        603 CCGACCTGCTGCTGCCCCAC 622
              |||| ||||| |||| | ||
Db          1 CCGAACTGCTCCTGCTCGAC 20


RESULT 5018
ABK90287
ID   ABK90287 standard; DNA; 20 BP.
XX
AC   ABK90287;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #20.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 20 BP; 1 A; 6 C; 13 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         49 GCGCGGCGGGGGCGGCGGCA 68
              |||||||||| | |  ||||
Db          1 GCGCGGCGGGCGGGCGGGCA 20


RESULT 5019
AAD43244
ID   AAD43244 standard; DNA; 20 BP.
XX
AC   AAD43244;
XX
DT   14-NOV-2002  (first entry)
XX
DE   Antisense oligonucleotide R51AS5.
XX
KW   Tumour cell proliferation; Rad51 inhibitor; p53 protein; premature aging;
KW   hyperproliferative disorder; Hodgkin's disease; squamous cell carcinoma;
KW   leukaemia; autoimmune disease; cancer; graft rejection; angioplasty;
KW   inflammatory bowel disease; immunosuppressive; gene therapy; arthritis;
KW   antisense; phosphorothioate backbone; ss.
XX
OS   Unidentified.
```

```
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag= a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
XX
PN   US2002086840-A1.
XX
PD   04-JUL-2002.
XX
PF   26-JAN-2001; 2001US-00771355.
XX
PR   26-JAN-2000; 2000US-0178561P.
XX
PA   (ZARL/) ZARLING D A.
PA   (REDD/) REDDY G.
XX
PI   Zarling DA,  Reddy G;
XX
DR   WPI; 2002-635686/68.
XX
PT   Inhibiting/reducing tumor cell proliferation in individual in vivo, for
PT   treating cancer, arthritis, involves contacting tumor cell in vivo with
PT   Rad51 inhibitor, and polynucleotide expressing functional p53 protein.
XX
PS   Disclosure; Page 5; 12pp; English.
XX
CC   The invention relates to a method for inhibiting or reducing tumour cell
CC   proliferation in an individual in vivo. The method comprising contacting
CC   a tumour cell in vivo with a Rad51 inhibitor and a polynucleotide capable
CC   of expressing functional p53 protein. The method is useful for inhibiting
CC   or reducing tumour cell proliferation in an individual in vivo. The
CC   method is useful for treating hyperproliferative disorders, especially
CC   cancer (such as Hodgkin's disease, squamous cell carcinoma and
CC   leukaemia), premature aging, autoimmune disease, arthritis, graft
CC   rejection, inflammatory bowel disease, and proliferation induced after
CC   medical procedures such as surgery and angioplasty. The invention is
CC   useful in gene therapy. The present sequence is an antisense
CC   oligonucleotide used to illustrate the method of the invention
XX
SQ   Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        563 GCGGGCGCGGTGAGCGCCCG 582
              ||||||| ||   |||||||
Db          1 GCGGGCGTGGCACGCGCCCG 20


RESULT 5020
ABA91531/c
ID   ABA91531 standard; DNA; 20 BP.
XX
AC   ABA91531;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02009 used to test RNase H cleavage.
XX
KW   DNA-RNA hybrid; RNase H; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 4; Page 49; 72pp; English.
XX
CC   The present sequence is that of DNA oligonucleotide AGT02009, which was
CC   used as a target oligonucleotide in an assay to determine the minimum
CC   number of ribonucleotides in DNA:RNA hybrids required for RNase H
CC   cleavage (see ABA91527-30), and in an assay which showed that mismatches
CC   between a target DNA and a hairpin DNA probe inhibit RNase H activity
CC   (see ABA91532-37). The invention provides probes for nucleic acid
CC   hybridisation. The probes form a hairpin structure comprising a double-
CC   stranded stem and a single-stranded loop, and are capable of both
CC   intramolecular and intermolecular hybridisation. The double-stranded stem
CC   may comprise a methylphosphonate DNA:RNA hybrid that is resistant to
CC   RNase H cleavage. When the probe hybridises with a target DNA, the RNA
CC   strand in the DNA:RNA duplex becomes sensitive to RNase H treatment and
CC   can be removed. Arrays and methods for nucleic acid hybridisation using
CC   the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTT 2174
              |||||||    |||||||||
Db         20 TTTTTTAAAATTTTTTTT 1


RESULT 5021
ABA91533/c
ID   ABA91533 standard; DNA; 20 BP.
XX
AC   ABA91533;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02021 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    12
FT                   /*tag= a
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
```

```
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 5; Page 50; 72pp; English.
XX
CC   The present sequence is that of oligonucleotide AGT02021, which contains
CC   a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC   one of a set of oligonucleotides (see ABA91532-37) containing
CC   mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC   H cleavage assay. The results showed that 2 mismatches between the target
CC   and the probe ablated RNase H cleavage. The effect of one mismatch site
CC   was less than that of two mismatch sites, and showed a polarity effect,
CC   with weaker inhibition shown in assays with AGT02021 than in assays using
CC   an oligonucleotide in which the mismatch was at an adjacent position.
CC   Oligonucleotides in which the mismatch was C or A rather than G showed
CC   similar inhibition of RNase H cleavage. The invention provides probes for
CC   nucleic acid hybridisation. The probes form a hairpin structure
CC   comprising a double-stranded stem and a single-stranded loop, and are
CC   capable of both intramolecular and intermolecular hybridisation. The
CC   double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC   is resistant to RNase H cleavage. When the probe hybridises with a target
CC   DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC   treatment and can be removed. Arrays and methods for nucleic acid
CC   hybridisation using the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||||    |||||||||
Db         20 TTTTTTTACAATTTTTTTTT 1


RESULT 5022
ABA91527
ID   ABA91527 standard; DNA; 20 BP.
XX
AC   ABA91527;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA-RNA-DNA oligonucleotide AGT02008 used to test RNase H cleavage.
XX
KW   DNA-RNA hybrid; RNase H; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_RNA        8. .11
FT                   /*tag=  a
FT                   /label= RNA
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 4; Page 49; 72pp; English.
XX
CC   The present sequence is that of DNA-RNA-DNA hybrid oligonucleotide
CC   AGT02008. This is one of a set of oligonucleotides (see ABA91527-30) used
CC   to assess the minimum number of ribonucleotides in DNA-RNA chimeric
CC   oligonucleotides required for RNase H cleavage. Each oligonucleotide of
CC   the set had a different number of ribonucleotides, 4 in the present case.
CC   The oligonucleotides were mixed with target DNA oligonucleotide AGT02009
CC   (see ABA91531) and incubated with RNase H (5 U/ml) at 37 degrees C for 30
CC   minutes. The results showed that 4 ribonucleotides were the minimum
CC   number for RNA cleavage. The invention provides probes for nucleic acid
CC   hybridisation. The probes form a hairpin structure comprising a double-
CC   stranded stem and a single-stranded loop, and are capable of both
CC   intramolecular and intermolecular hybridisation. The double-stranded stem
CC   may comprise a methylphosphonate DNA:RNA hybrid that is resistant to
CC   RNase H cleavage. When the probe hybridises with a target DNA, the RNA
CC   strand in the DNA:RNA duplex becomes sensitive to RNase H treatment and
CC   can be removed. Arrays and methods for nucleic acid hybridisation using
CC   the probes are provided
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||||    |||||||||
Db          1 TTTTTTTAAAATTTTTTTTT 20


RESULT 5023
ABA91536/c
ID   ABA91536 standard; DNA; 20 BP.
XX
AC   ABA91536;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02024 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    12
FT                   /*tag=  a
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
```

PT stranded loop collectively forming region complementary to target
PT sequence.
XX
PS Example 5; Page 50; 72pp; English.
XX
CC The present sequence is that of oligonucleotide AGT02024, which contains
CC a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC one of a set of oligonucleotides (see ABA91532-37) containing
CC mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC H cleavage assay. The results showed that 2 mismatches between the target
CC and the probe ablated RNase H cleavage. The effect of one mismatch site
CC was less than that of two mismatch sites, and showed a polarity effect,
CC with weaker inhibition shown in assays with AGT02021 than in assays using
CC an oligonucleotide in which the mismatch was at an adjacent position.
CC Oligonucleotides in which the mismatch was G or A rather than C showed
CC similar inhibition of RNase H cleavage. The invention provides probes for
CC nucleic acid hybridisation. The probes form a hairpin structure
CC comprising a double-stranded stem and a single-stranded loop, and are
CC capable of both intramolecular and intermolecular hybridisation. The
CC double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC is resistant to RNase H cleavage. When the probe hybridises with a target
CC DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC treatment and can be removed. Arrays and methods for nucleic acid
CC hybridisation using the probes are provided
XX
SQ Sequence 20 BP; 16 A; 1 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2155 TTTTTTTCTCCTTTTTTTTT 2174
||||||| |||||||||
Db 20 TTTTTTTAGAATTTTTTTTT 1

RESULT 5024
ABQ65299
ID ABQ65299 standard; DNA; 20 BP.
XX
AC ABQ65299;
XX
DT 20-AUG-2002 (first entry)
XX
DE Human gene methylation status determination method PCR primer #39.
XX
KW Toxicological diagnosis; DNA methylation; methylation status;
KW toxic response; human; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200240710-A2.
XX
PD 23-MAY-2002.
XX
PF 08-NOV-2001; 2001WO-EP012951.
XX
PR 14-NOV-2000; 2000DE-01056802.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2002-463571/49.
XX
PT Toxicological diagnosis, useful for diagnosis and prognosis of adverse
PT reactions, based on effect of test compounds on methylation status of
PT selected genes, involves determining changes in DNA methylation status.
XX
PS Example 2; Page 102; 113pp; German.
XX
CC The present invention relates to a method of toxicological diagnosis,
CC involving taking a DNA-containing sample from an organism or cell culture
CC that has been treated with a test compound and determining any changes in
CC the DNA methylation status or pattern caused by said test compound. The
CC method is used for diagnosis and prognosis of adverse toxic responses in
CC individuals. The present sequence is a PCR primer used to demonstrate the
CC method of the invention
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2683 GGTGAAATGGAGATTTGGAA 2702
|| |||||||||| || ||
Db 1 GGGGAAATGGAGAAGTGTAA 20

RESULT 5025
ABK85429
ID ABK85429 standard; DNA; 20 BP.
XX
AC ABK85429;
XX
DT 29-AUG-2003 (revised)
DT 14-AUG-2002 (first entry)
XX
DE Oligonucleotide #7 binding to specific site of HIV-1 RNA.
XX
KW Human immunodeficiency virus type 1; HIV-1 detection method; primer;
KW probe; ss.
XX
OS Human immunodeficiency virus 1.
XX
PN EP1203826-A2.
XX
PD 08-MAY-2002.
XX
PF 30-OCT-2001; 2001EP-00125378.
XX
PR 30-OCT-2000; 2000JP-00334937.
XX
PA (TOYJ) TOSOH CORP.
XX
PI Ishizuka T, Ishiguro T, Saitoh J;
XX
DR WPI; 2002-473032/51.
XX
PT An oligonucleotide useful for detection of an RNA derived from HIV-1 in
PT clinical tests and diagnosis.
XX
PS Claim 6; Page 14; 34pp; English.
XX
CC The present invention relates to oligonucleotides binding to specific
CC sites of human immunodeficiency virus type 1 (HIV-1) RNA. The
CC oligonucleotides are useful for detecting HIV-1 in clinical tests and
CC diagnosis. The oligonucleotides provide simple, speedy and sensitive
CC detection of HIV-1 RNA which can bind to an intramolecularly free region
CC of the genomic RNA of HIV-1 at relatively low and constant temperatures.
CC The detection method comprises synthesising a cDNA by the action of an
CC RNA-dependent DNA polymerase by using a specific sequence in an RNA
CC derived from HIV-1 anticipated in a sample as a template, a first primer
CC containing a sequence complementary to the specific sequence and a second
CC primer containing a sequence homologous to the specific sequence (either
CC of which additionally has a promoter sequence for the RNA polymerase at
CC the 5'end). ABK85423-ABK85440 represent oligonucleotides binding to
CC specific sites of HIV-1 RNA. They can be used either as first primers or
CC probes. (Updated on 29-AUG-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 1 A; 2 C; 1 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||| | ||||| ||||
Db          1 TTTTTTCTTACTTTTGTTTT 20


RESULT 5026
AAD41025
ID   AAD41025 standard; DNA; 20 BP.
XX
AC   AAD41025;
XX
DT   30-OCT-2002  (first entry)
XX
DE   Mouse PI3K p85 antisense oligonucleotide ISIS #131418.
XX
KW   Mouse; antisense; PI3K p85; obesity; type 2 diabetes; cancer; tumour;
KW   prophylaxis; hyperproliferative condition; infection; inflammation;
KW   therapy; phosphorothioate; ss.
XX
OS   Mus musculus.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   1. .2
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   5
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   17
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  g
FT                   /mod_base= m5c
XX
PN   WO200240637-A2.
XX
PD   23-MAY-2002.
XX
PF   19-NOV-2001; 2001WO-US045006.
XX
PR   20-NOV-2000; 2000US-00715983.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM,  Murray SF,  Butler MM,  Dean NM;
XX
DR   WPI; 2002-519374/55.
XX
PT   Antisense compounds targeted against polynucleotides encoding PI3K p85
PT   useful for treating e.g. cancer, Type 2 diabetes, obesity.
XX
PS   Example 18; Page 81; 121pp; English.
XX
CC   The invention relates to antisense compounds targetted to a nucleic acid
CC   molecule encoding PI3K p85 to inhibits its expression. Antisense
CC   compounds of the invention are used for treating obesity, Type 2 diabetes
CC   and hyperproliferative condition e.g. cancer. They may also be useful
CC   prophylactically, e.g. to prevent or delay infection, inflammation or
CC   tumour formation. Antisense compounds either alone or in combination with
CC   other antisense compounds or therapeutics can be used as tools in
CC   differential and/or combinatorial analyses to elucidate expression
CC   patterns of a portion or the entire complement of genes expressed within
CC   cells and tissues. They are commonly used as research reagents and
CC   diagnostics. The present sequence is an antisense oligonucleotide
CC   targetted to mouse PI3K p85 DNA
XX
SQ   Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2110 CCTTCTGGTTTTAGGAAACT 2129
              ||| ||||| || ||| |||
Db          1 CCTGCTGGTATTTGGACACT 20


RESULT 5027
AAD40874
ID   AAD40874 standard; DNA; 20 BP.
XX
AC   AAD40874;
XX
DT   30-OCT-2002  (first entry)
XX
DE   Human hepsin antisense oligonucleotide, ISIS 107148.
XX
KW   Human; hepsin; antisense compound; antisense therapy; antisense;
KW   phosphorothioate backbone; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'methoxyethyl nucleotides"
FT   modified_base   2
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   3
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   6
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'methoxyethyl nucleotides"
XX
PN   WO200250247-A2.
XX
PD   27-JUN-2002.
XX
PF   14-DEC-2001; 2001WO-US048341.
XX
PR   20-DEC-2000; 2000US-00742482.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2002-519882/55.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human hepsin,
```

PT useful for inhibiting the expression of hepsin in human cells or tissues,
PT and for treating humans having a disease associated with human hepsin.
XX
PS Example 15; Page 100; 100pp; English.
XX
CC The invention relates to antisense compounds, compositions and methods
CC for modulating the expression of hepsin. The compositions comprise
CC antisense compounds, particularly antisense oligonucleotides, targetted
CC to nucleic acids encoding hepsin. The antisense compound is useful for
CC inhibiting the expression of hepsin in human cells or tissues. It is also
CC useful for treating an animal having a disease or condition associated
CC with hepsin, by inhibiting expression of hepsin. It is useful for
CC diagnostics, therapeutics, prophylaxis and as research reagents and kits.
CC It is also used in antisense therapy. The present sequence is an
CC antisense oligonucleotide targetted to human hepsin DNA. This sequence is
CC used in the exemplification of the invention
XX
SQ Sequence 20 BP; 7 A; 3 C; 1 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1627 ACCTACCTTACTATTTAAAG 1646
||| | ||| |||||||||
Db 1 ACCATCTTTATTATTTAAAG 20

RESULT 5028
AAS96809
ID AAS96809 standard; DNA; 20 BP.
XX
AC AAS96809;
XX
DT 26-FEB-2002 (first entry)
XX
DE Human STAT3 antisense phosphorothioate oligodeoxynucleotide #42.
XX
KW STAT3; human; signal transducer and activator of transcription; ss; STAT;
KW antisense gene therapy; Fas-mediated apoptosis; inflammatory disease;
KW autoimmune disease; rheumatoid arthritis; cancer; breast; prostate; head;
KW neck; brain; leukaemia; myeloma; melanoma; lymphoma; apoptosis;
KW antiinflammatory; immunosuppressive; antirheumatic; antiarthritic;
KW cytostatic.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN US2001029250-A1.
XX
PD 11-OCT-2001.
XX
PF 11-JAN-2001; 2001US-00758881.
XX
PR 08-APR-1999; 99US-00288461.
PR 06-APR-2000; 2000WO-US009054.
XX
PA (KARR/) KARRAS J G.
XX
PI Karras JG;
XX
DR WPI; 2002-009991/01.
XX
PT Novel antisense compound useful for treating and diagnosing inflammatory
PT diseases and cancers, is targeted to a nucleic acid molecule encoding
PT signal transducer and activator of transcription proteins.
XX
PS Example 2; Page 13; 21pp; English.
XX
CC The invention relates to antisense compounds targeted to a nucleic acid
CC molecule encoding a signal transducer and activator of transcription
CC (STAT) protein, specifically STAT3, where the antisense compounds inhibit
CC the expression of STAT3. The antisense sequences are useful for
CC inhibiting the expression of STAT3 in cells or tissues, inducing Fas-
CC mediated apoptosis in cells, and sensitising cells to apoptosis. They are
CC also useful for treating an animal having a disease or condition
CC associated with STAT3. These disorders include inflammatory or autoimmune
CC disease, particularly rheumatoid arthritis, cancers, such as those of the
CC breast, prostate, brain and head and neck and leukaemias, myelomas,
CC melanomas and lymphomas. Also treatable are human diseases or conditions
CC characterised by a reduction in apoptosis or an insensitivity to
CC apoptotic signals. The sequences of the invention can be used in clinical
CC research, for detecting and determining the role of STAT3 in various cell
CC functions and physiological processes and for diagnosing conditions
CC associated with the expression of STAT3. The sequences represent cDNA
CC encoding human STAT3 and human STAT3 oligonucleotides
XX
SQ Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1741 TGACAAGTACTGGCTCTTTA 1760
||||||| | ||| ||| ||
Db 1 TGACAAGGAGTGGGTCTCTA 20

RESULT 5029
AAS97811
ID AAS97811 standard; DNA; 20 BP.
XX
AC AAS97811;
XX
DT 12-MAR-2002 (first entry)
XX
DE Murine SAC1 gene-specific oligonucleotide PCR primer #378.
XX
KW Human; mouse; SAC1; carbohydrate; sweetener; ethanol; alcoholism; ss;
KW obesity; diabetes; transgenic embryo; body tissue; body fluid; pancreas;
KW blood; tongue; PCR primer; anorectic; antidiabetic; gene therapy;
KW protein replacement therapy.
XX
OS Mus sp.
XX
PN WO200183749-A2.
XX
PD 08-NOV-2001.
XX
PF 25-APR-2001; 2001WO-US013387.
XX
PR 28-APR-2000; 2000US-0200794P.
PR 28-JUL-2000; 2000US-0221419P.
PR 10-NOV-2000; 2000US-0247443P.
XX
PA (WARN) WARNER LAMBERT CO.
PA (MONE-) MONELL CHEM SENSES CENT.
XX
PI Bachmanov AA, Beauchamp GK, Chatterjee A, De Jong PJ, Li S, Li X;
PI Ohmen JD, Reed DR, Ross D, Tordoff MG;
XX
DR WPI; 2002-075162/10.
XX
PT Novel isolated polypeptide comprising variant form of mouse or human SAC1
PT polypeptide, and is associated with altered preference for carbohydrates
PT or other sweeteners, useful for preventing obesity, diabetes, alcoholism.
XX
PS Claim 14; Page 88; 239pp; English.
XX
CC The invention relates to an isolated polypeptide, comprising a variant
CC form of mouse or human SAC1 polypeptide. The variant form is associated
CC with altered preference for carbohydrates, other sweeteners or ethanol.
CC The polypeptide and its associated DNA sequence can be produced by
CC recombinant techniques and is useful for preventing obesity, diabetes or
CC alcoholism associated with SAC1 expression. The sequences are useful in
CC screening for drugs and sweeteners. Recombinant cell lines and transgenic

```
CC   embryos may be used in screening for and identifying agents that induce
CC   or repress function of SAC1. Predisposition to diabetes, obesity or
CC   alcoholism can be ascertained by testing any fluid or tissue of a human
CC   (such as blood, pancreas or tongue) for sequence variations of the SAC1
CC   gene. A sequence variation of the SAC1 locus may indicate a
CC   predisposition to diabetes, obesity and/or alcoholism and may provide a
CC   diagnostic mark. The polynucleotide can be detected in a biological
CC   sample by contacting the DNA with a probe to form a hybridisation complex
CC   which is then detected. The sequences represent cDNA encoding human and
CC   mouse SAC1 polypeptides and PCR primers specific for the SCA1 genes
XX
SQ   Sequence 20 BP; 7 A; 7 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1562 ACTGCAAAAATCCTTCTCCA 1581
              ||||||||  |||  |||||
Db          1 ACTGCAAATGTCCAACTCCA 20


RESULT 5030
AAS97626/c
ID   AAS97626 standard; DNA; 20 BP.
XX
AC   AAS97626;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Murine SAC1 gene-specific oligonucleotide PCR primer #231.
XX
KW   Human; mouse; SAC1; carbohydrate; sweetener; ethanol; alcoholism; ss;
KW   obesity; diabetes; transgenic embryo; body tissue; body fluid; pancreas;
KW   blood; tongue; PCR primer; anorectic; antidiabetic; gene therapy;
KW   protein replacement therapy.
XX
OS   Mus sp.
XX
PN   WO200183749-A2.
XX
PD   08-NOV-2001.
XX
PF   25-APR-2001; 2001WO-US013387.
XX
PR   28-APR-2000; 2000US-0200794P.
PR   28-JUL-2000; 2000US-0221419P.
PR   10-NOV-2000; 2000US-0247443P.
XX
PA   (WARN ) WARNER LAMBERT CO.
PA   (MONE-) MONELL CHEM SENSES CENT.
XX
PI   Bachmanov AA,  Beauchamp GK,  Chatterjee A,  De Jong PJ,  Li S,  Li X;
PI   Ohmen JD,  Reed DR,  Ross D,  Tordoff MG;
XX
DR   WPI; 2002-075162/10.
XX
PT   Novel isolated polypeptide comprising variant form of mouse or human SAC1
PT   polypeptide, and is associated with altered preference for carbohydrates
PT   or other sweeteners, useful for preventing obesity, diabetes, alcoholism.
XX
PS   Claim 14; Page 82; 239pp; English.
XX
CC   The invention relates to an isolated polypeptide, comprising a variant
CC   form of mouse or human SAC1 polypeptide. The variant form is associated
CC   with altered preference for carbohydrates, other sweeteners or ethanol.
CC   The polypeptide and its associated DNA sequence can be produced by
CC   recombinant techniques and is useful for preventing obesity, diabetes or
CC   alcoholism associated with SAC1 expression. The sequences are useful in
CC   screening for drugs and sweeteners. Recombinant cell lines and transgenic
CC   embryos may be used in screening for and identifying agents that induce
CC   or repress function of SAC1. Predisposition to diabetes, obesity or
CC   alcoholism can be ascertained by testing any fluid or tissue of a human
CC   (such as blood, pancreas or tongue) for sequence variations of the SAC1
CC   gene. A sequence variation of the SAC1 locus may indicate a
CC   predisposition to diabetes, obesity and/or alcoholism and may provide a
CC   diagnostic mark. The polynucleotide can be detected in a biological
CC   sample by contacting the DNA with a probe to form a hybridisation complex
CC   which is then detected. The sequences represent cDNA encoding human and
CC   mouse SAC1 polypeptides and PCR primers specific for the SCA1 genes
XX
SQ   Sequence 20 BP; 10 A; 3 C; 7 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1331 TGCTTGTCTCATTTCAGCCT 1350
              | |||||||  |||| ||||
Db         20 TCCTTGTCTGCTTTCTGCCT 1


RESULT 5031
ABK37098/c
ID   ABK37098 standard; DNA; 20 BP.
XX
AC   ABK37098;
XX
DT   08-MAY-2002  (first entry)
XX
DE   Human lysophospholipase I gene, antisense oligonucleotide #50.
XX
KW   Human; mouse; antiinflammatory; antiarteriosclerotic; vasotropic;
KW   antilipaemic; cardiant; lysophospholipase I; inflammation; ischaemia;
KW   hyperlipidaemia; cardiovascular disorder; atherosclerosis;
KW   antisense gene therapy; primer; ss.
XX
OS   Homc sapiens.
OS   Synthetic.
XX
PN   WO200210185-A1.
XX
PD   07-FEB-2002.
XX
PF   20-JUL-2001; 2001WO-US022975.
XX
PR   31-JUL-2000; 2000US-00629645.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Wyatt JR;
XX
DR   WPI; 2002-188720/24.
XX
PT   Novel antisense compound useful for treating inflammation,
PT   hyperlipidemia, and cardiovascular disorders such as atherosclerosis and
PT   myocardial ischemia, inhibits Lysophospholipase I.
XX
PS   Claim 3; Page 80; 131pp; English.
XX
CC   The invention relates to an antisense compound (I) 8-30 nucleobases in
CC   length targeted to a nucleic acid molecule encoding lysophospholipase I
CC   (II), where (I) specifically hybridises with and inhibits the expression
CC   of (II). (I) is useful for inhibiting the expression of (II) in cells or
CC   tissues, and for treating a human having a disease or condition
CC   associated with Lysophospholipase I e.g. inflammation, hyperlipidaemia,
CC   and cardiovascular disorders such as atherosclerosis and myocardial
CC   ischaemia. (I) is useful as research reagent and diagnostics. (I) is also
CC   useful for distinguishing functions of various members of a biological
CC   pathway. (I) is useful in antisense gene therapy. ABK37028-ABK37191
CC   represent lysophospholipase I coding sequences, antisense
CC   oligonucleotides and related PCR primers of the invention. Note:
CC   Antisense oligonucleotides are modified such that bases 1-5 and 16-20 are
CC   2'-methoxyethyl (2'-MOE) nucleotides, all bases have phosphorothioate
CC   linkages, and all cytidines are 5-methyl cytidines
XX
```

SQ Sequence 20 BP; 9 A; 4 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2344 CCGTGGAGGTTCTGTATTTT 2363
|| || || ||||||||||
Db 20 CCATGCAGTGTCTGTATTTT 1

RESULT 5032
ABK37112
ID ABK37112 standard; DNA; 20 BP.
XX
AC ABK37112;
XX
DT 08-MAY-2002 (first entry)
XX
DE Human lysophospholipase I gene, antisense oligonucleotide #64.
XX
KW Human; mouse; antiinflammatory; antiarteriosclerotic; vasotropic;
KW antilipaemic; cardiant; lysophospholipase I; inflammation; ischaemia;
KW hyperlipidaemia; cardiovascular disorder; atherosclerosis;
KW antisense gene therapy; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200210185-A1.
XX
PD 07-FEB-2002.
XX
PF 20-JUL-2001; 2001WO-US022975.
XX
PR 31-JUL-2000; 2000US-00629645.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Wyatt JR;
XX
DR WPI; 2002-188720/24.
XX
PT Novel antisense compound useful for treating inflammation,
PT hyperlipidemia, and cardiovascular disorders such as atherosclerosis and
PT myocardial ischemia, inhibits Lysophospholipase I.
XX
PS Example 15; Page 80; 131pp; English.
XX
CC The invention relates to an antisense compound (I) 8-30 nucleobases in
CC length targeted to a nucleic acid molecule encoding lysophospholipase I
CC (II), where (I) specifically hybridises with and inhibits the expression
CC of (II). (I) is useful for inhibiting the expression of (II) in cells or
CC tissues, and for treating a human having a disease or condition
CC associated with Lysophospholipase I e.g. inflammation, hyperlipidaemia,
CC and cardiovascular disorders such as atherosclerosis and myocardial
CC ischaemia. (I) is useful as research reagent and diagnostics. (I) is also
CC useful for distinguishing functions of various members of a biological
CC pathway. (I) is useful in antisense gene therapy. ABK37028-ABK37191
CC represent lysophospholipase I coding sequences, antisense
CC oligonucleotides and related PCR primers of the invention. Note:
CC Antisense oligonucleotides are modified such that bases 1-5 and 16-20 are
CC 2'-methoxyethyl (2'-MOE) nucleotides, all bases have phosphorothioate
CC linkages, and all cytidines are 5-methyl cytidines
XX
SQ Sequence 20 BP; 7 A; 2 C; 2 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2512 CATAAGGTTTTATTCATATA 2531
|||||| || | |||| |||
Db 1 CATAAGTTTGTTTTCAAATA 20

RESULT 5033
ABK37064
ID ABK37064 standard; DNA; 20 BP.
XX
AC ABK37064;
XX
DT 08-MAY-2002 (first entry)
XX
DE Human lysophospholipase I gene, antisense oligonucleotide #16.
XX
KW Human; mouse; antiinflammatory; antiarteriosclerotic; vasotropic;
KW antilipaemic; cardiant; lysophospholipase I; inflammation; ischaemia;
KW hyperlipidaemia; cardiovascular disorder; atherosclerosis;
KW antisense gene therapy; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200210185-A1.
XX
PD 07-FEB-2002.
XX
PF 20-JUL-2001; 2001WO-US022975.
XX
PR 31-JUL-2000; 2000US-00629645.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Wyatt JR;
XX
DR WPI; 2002-188720/24.
XX
PT Novel antisense compound useful for treating inflammation,
PT hyperlipidemia, and cardiovascular disorders such as atherosclerosis and
PT myocardial ischemia, inhibits Lysophospholipase I.
XX
PS Claim 3; Page 79; 131pp; English.
XX
CC The invention relates to an antisense compound (I) 8-30 nucleobases in
CC length targeted to a nucleic acid molecule encoding lysophospholipase I
CC (II), where (I) specifically hybridises with and inhibits the expression
CC of (II). (I) is useful for inhibiting the expression of (II) in cells or
CC tissues, and for treating a human having a disease or condition
CC associated with Lysophospholipase I e.g. inflammation, hyperlipidaemia,
CC and cardiovascular disorders such as atherosclerosis and myocardial
CC ischaemia. (I) is useful as research reagent and diagnostics. (I) is also
CC useful for distinguishing functions of various members of a biological
CC pathway. (I) is useful in antisense gene therapy. ABK37028-ABK37191
CC represent lysophospholipase I coding sequences, antisense
CC oligonucleotides and related PCR primers of the invention. Note:
CC Antisense oligonucleotides are modified such that bases 1-5 and 16-20 are
CC 2'-methoxyethyl (2'-MOE) nucleotides, all bases have phosphorothioate
CC linkages, and all cytidines are 5-methyl cytidines
XX
SQ Sequence 20 BP; 4 A; 6 C; 2 G; 8 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1782 GAACCCCATTCTTTCCTTCT 1801
||| |||||||| |||||
Db 1 GAATGCCATTCTTCACTTCT 20

RESULT 5034
AAD41793/c
ID AAD41793 standard; DNA; 20 BP.
XX
AC AAD41793;

```
XX
DT   30-OCT-2002  (first entry)
XX
DE   Human RECQL2 antisense oligonucleotide, ISIS #137573.
XX
KW   Antisense; RECQL2; Bloom's disorder; prophylaxis; infection; tumour;
KW   inflammation; therapy; human; phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   1
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   3
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   10. .11
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   15
FT                   /*tag=  g
FT                   /mod_base= m5c
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   18. .19
FT                   /*tag=  h
FT                   /mod_base= m5c
XX
PN   US6399378-B1.
XX
PD   04-JUN-2002.
XX
PF   01-MAR-2001; 2001US-00798096.
XX
PR   01-MAR-2001; 2001US-00798096.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Ward DT,  Watt AT;
XX
DR   WPI; 2002-535979/57.
XX
PT   Antisense compounds targeted to nucleic acids encoding RECQL2 associated
PT   with Bloom's disorder, for modulating RECQL2 expression and treating
PT   diseases e.g. tumors associated with expression of the RECQL2 in humans.
XX
PS   Claim 3; Col 45; 86pp; English.
XX
CC   The invention relates to antisense compounds targetted to nucleic acid
CC   encoding RECQL2 (gene associated with Bloom's disorder) to inhibit the
CC   expression of RECQL2. Antisense compounds of the invention are useful for
CC   treating diseases associated with expression of RECQL2, in humans. They
CC   are useful for diagnostics, therapeutics and as research reagent, e.g.
CC   prophylactically to prevent or delay infection, inflammation or tumour
CC   formation. They are also useful in antisense therapy. The present
CC   sequence is an antisense oligonucleotide targetted to human RECQL2 DNA
XX
SQ   Sequence 20 BP; 8 A; 7 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1366 TGGCAGCCAGGCCATCTGTG 1385
              |||| | ||||  |||||||
Db         20 TGGCTGTCAGGTTATCTGTG 1

RESULT 5035
ABS77869/c
ID   ABS77869 standard; DNA; 20 BP.
XX
AC   ABS77869;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #353.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 25; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1543 AGAGTAGGGAAGGAACAGGA 1562
              ||| |  |||||||||  |||
Db         20 AGACTGAGGAAGGAACTGGA 1
```

```
RESULT 5036
ABS78371/c
ID   ABS78371 standard; DNA; 20 BP.
XX
AC   ABS78371;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #855.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 34; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1


RESULT 5037
ABS78292
ID   ABS78292 standard; DNA; 20 BP.
XX
AC   ABS78292;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #776.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 33; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20


RESULT 5038
ABS78041/c
ID   ABS78041 standard; DNA; 20 BP.
XX
AC   ABS78041;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #525.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
```

KW rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW plaque neovascularisation; telangiectasia; haemophiliac joint;
KW angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW scleroderma; hypertrophic scar.
XX
OS Synthetic.
XX
PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;
XX
DR WPI; 2002-566690/60.
XX
PT Inhibiting angiogenesis in a subject, involves administering at least one
PT antiangiogenic nucleic acid molecule to the subject.
XX
PS Claim 2; Page 28; 276pp; English.
XX
CC The invention relates to inhibiting angiogenesis in a subject, comprising
CC administering at least one antiangiogenic nucleic acid molecule. Also
CC included is a kit comprising a first container housing the antiangiogenic
CC nucleic acids, and instructions for administering them to a subject
CC having a condition characterised by unwanted angiogenesis. The method is
CC useful for inhibiting angiogenesis associated with solid tumour growth,
CC tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC acid of the invention
XX
SQ Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1
```

RESULT 5039
ABT07437/c
ID ABT07437 standard; DNA; 20 BP.
XX
AC ABT07437;
XX
DT 14-NOV-2002 (first entry)
XX
DE Mammalian protein phosphatase 2 oligo inhibitor SEQ ID No 51.
XX
KW Cytostatic; antidiabetic; antisense therapy; aberrant insulin regulation;
KW protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
KW hyperproliferative disorder; diabetes; inflammation; tumour; mammalian;
KW ds.
XX
OS Mammalia.
XX
PN WO200264737-A2.
XX
PD 22-AUG-2002.
XX
PF 31-JAN-2002; 2002WO-US002805.
XX
PR 09-FEB-2001; 2001US-00780045.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Wyatt JR;
XX
DR WPI; 2002-657588/70.
XX
PT New antisense oligonucleotides targeted to nucleic acid encoding Protein
PT Phosphatase 2 catalytic subunit beta, useful for treating diseases
PT related to Protein Phosphatase 2 catalytic subunit beta expression, such
PT as cancer.
XX
PS Claim 3; Page 95; 137pp; English.
XX
CC The invention relates to a novel compound 8-50 nucleotides in length
CC targeted to a nucleic acid molecule encoding a protein phosphatase 2
CC catalytic beta subunit, where the compound specifically hybridises with
CC and inhibits the expression of protein phosphatase 2 catalytic beta
CC subunits, or specifically hybridises with at least an 8-nucleotide
CC portion of an active site on a nucleic acid molecule encoding a protein
CC phosphatase 2 catalytic beta subunit. The antisense compounds are useful
CC for modulating the expression of protein phosphatase 2 catalytic beta
CC subunits and for treating diseases or conditions associated with
CC expression of protein phosphatase 2 catalytic beta subunits, e.g.
CC aberrant insulin regulation or diabetes or a hyperproliferative disorder,
CC particularly cancer. The antisense compounds are also useful for
CC diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
CC infection, inflammation or tumour formation, as research reagents and
CC kits, and in distinguishing between functions of various members of a
CC biological pathway. This polynucleotide sequence represents an
CC oligonucleotide inhibitor of mammalian protein phosphatase 2 catalytic
CC beta subunit mRNA levels of the invention. NOTE: This oligonucleotide
CC contains phosphorothioate residues and has 2'- MOE wings with a deoxy gap
XX
SQ Sequence 20 BP; 7 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1070 CTGACATCCTTAGTAGAAGG 1089
              || ||| | ||||||| ||
Db         20 CTTACAGCTTTAGTAGATGG 1
```

RESULT 5040
ABT07470/c
ID ABT07470 standard; DNA; 20 BP.
XX
AC ABT07470;
XX
DT 14-NOV-2002 (first entry)
XX
DE Human protein phosphatase 2 oligo inhibitor SEQ ID No 84.
XX
KW Cytcstatic; antidiabetic; antisense therapy; aberrant insulin regulation;
KW protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
KW hyperproliferative disorder; diabetes; inflammation; tumour; human; ds.
XX
OS Homo sapiens.
XX
PN WO200264737-A2.
XX
PD 22-AUG-2002.
XX
PF 31-JAN-2002; 2002WO-US002805.
XX
PR 09-FEB-2001; 2001US-00780045.
XX
PA (ISIS-) ISIS PHARM INC.

```
XX
PI   Monia BP,  Wyatt JR;
XX
DR   WPI; 2002-657588/70.
XX
PT   New antisense oligonucleotides targeted to nucleic acid encoding Protein
PT   Phosphatase 2 catalytic subunit beta, useful for treating diseases
PT   related to Protein Phosphatase 2 catalytic subunit beta expression, such
PT   as cancer.
XX
PS   Example 15; Page 95; 137pp; English.
XX
CC   The invention relates to a novel compound 8-50 nucleotides in length
CC   targeted to a nucleic acid molecule encoding a protein phosphatase 2
CC   catalytic beta subunit, where the compound specifically hybridises with
CC   and inhibits the expression of protein phosphatase 2 catalytic beta
CC   subunits, or specifically hybridises with at least an 8-nucleotide
CC   portion of an active site on a nucleic acid molecule encoding a protein
CC   phosphatase 2 catalytic beta subunit. The antisense compounds are useful
CC   for modulating the expression of protein phosphatase 2 catalytic beta
CC   subunits and for treating diseases or conditions associated with
CC   expression of protein phosphatase 2 catalytic beta subunits, e.g.
CC   aberrant insulin regulation or diabetes or a hyperproliferative disorder,
CC   particularly cancer. The antisense compounds are also useful for
CC   diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
CC   infection, inflammation or tumour formation, as research reagents and
CC   kits, and in distinguishing between functions of various members of a
CC   biological pathway. This polynucleotide sequence represents an
CC   oligonucleotide inhibitor of human protein phosphatase 2 catalytic beta
CC   subunit mRNA levels of the invention. NOTE: This oligonucleotide contains
CC   phosphorothioate residues and has 2'- MOE wings with a deoxy gap
XX
SQ   Sequence 20 BP; 12 A; 1 C; 2 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1765 TTAAGCTTTTTTTTTTTGAA 1784
              |||  |||| |||| |||||
Db         20 TTATCCTTTATTTTATTGAA 1


RESULT 5041
ABL38651/c
ID   ABL38651 standard; DNA; 20 BP.
XX
AC   ABL38651;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 5.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; phosphorodithioate backbone; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorodithioate backbone"
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 96; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1


RESULT 5042
ABL39120/c
ID   ABL39120 standard; DNA; 20 BP.
XX
AC   ABL39120;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 542.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 233; 312pp; English.
```

```
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1543 AGAGTAGGGAAGGAACAGGA 1562
              ||| |  ||||||||| |||
Db         20 AGACTGAGGAAGGAACTGGA 1

RESULT 5043
ABL38654
ID   ABL38654 standard; DNA; 20 BP.
XX
AC   ABL38654;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 9.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 97; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20

RESULT 5044
ABL38650/c
ID   ABL38650 standard; DNA; 20 BP.
XX
AC   ABL38650;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 4.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 96; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1
```

RESULT 5045
ABK34037
ID ABK34037 standard; DNA; 20 BP.
XX
AC ABK34037;
XX
DT 18-JUN-2002 (first entry)
XX
DE Human CSNK2B PCR primer #1.
XX
KW Human; ss; astrocytoma; cytostatic; staging; cysteine methylation; CpG;
KW bisulphite; brain tissue; MALDI; ESI; electron spray mass spectrometry;
KW matrix assisted laser desorption/ionization mass spectrometry; primer.
XX
OS Homo sapiens.
XX
PN WO200202808-A2.
XX
PD 10-JAN-2002.
XX
PF 02-JUL-2001; 2001WO-EP007538.
XX
PR 30-JUN-2000; 2000DE-01032529.
PR 01-SEP-2000; 2000DE-01043826.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2002-171649/22.
XX
PT Novel chemically modified genomic DNA sequences, useful in the
PT characterization, classification, differentiation, grading, staging,
PT treatment and/or diagnosis of astrocytomas or predisposition to
PT astrocytomas.
XX
PS Example 4; Page 20; 37pp; English.
XX
CC The invention relates to a nucleic acid comprising a sequence (I) of at
CC least 18 bases in length of a segment of chemically pre-treated genomic
CC DNA which has any one of the sequences of (ABK33919-ABK34032) or its
CC complement. Also included are an oligonucleotide or peptide nucleic acid
CC (or set thereof) of at least 9 nucleotides which hybridises to (I),
CC primers for (I), probes for detecting cytosine methylation or single-
CC nucleotide polymorphisms (SNP) in (I), an array of oligomers or peptide
CC nucleic acids for analysing diseases associated with the methylation
CC states of the CpG dinucleotides of (I). The array is useful for
CC determining genetic and/or epigenetic parameters, classification,
CC differentiation, grading, staging, treatment and/or diagnosis of
CC astrocytomas, or the predisposition to astrocytomas by analysing cytosine
CC methylations, involves obtaining a biological sample containing genomic
CC DNA, extracting the genomic DNA, converting cytosine bases which are
CC unmethylated at the 5-position, in the genomic DNA sample, to uracil or
CC another base which is dissimilar to cytosine in terms of hybridisation
CC behaviour, by chemical treatment and amplifying chemically pre-treated
CC genomic DNA fragments using the array and a polymerase, where the
CC amplificates carry a detectable label. The method further involves
CC identifying methylation status of one or more cytosine positions, and
CC analysing methylation status of the cytosine positions by reference to
CC one or more data sets. The genomic DNA is chemically treated by using a
CC bisulphite, hydrogen sulphite or disulphite. The amplification step
CC amplifies DNA which is of particular interest in astrocytoma or brain
CC tissue, based on the specific genomic methylation status of brain
CC tissues, as opposed to background DNA. The amplificates carry a
CC fluorescent label or radionuclide. Optionally, the labels of the
CC amplificates are detachable molecule fragments having a typical mass
CC which are detected in a mass spectrometer. The fragments of chemically
CC pre-treated genomic DNA to be amplified, have a single positive or
CC negative charge for a better detectability in the mass spectrometer.
CC Preferably, the amplificates or fragments of the amplificates are
CC detected by matrix assisted laser desorption/ionization mass spectrometry
CC (MALDI) or using electron spray mass spectrometry (ESI). The present
CC sequence is a PCR primer used to amplify a region containing a methylated
CC cytosine from one of the chemically pre-treated reference DNA samples of
CC the invention. Note: The sequence data for this patent did not form part
CC of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2683 GGTGAAATGGAGATTTGGAA 2702
              || ||||||||||  || ||
Db          1 GGGGAAATGGAGAAGTGTAA 20
```

RESULT 5046
ABK67993
ID ABK67993 standard; DNA; 20 BP.
XX
AC ABK67993;
XX
DT 02-JUL-2002 (first entry)
XX
DE Mutant DNA library PCR primer #43.
XX
KW Mutant DNA library; unit domain; clone; protein library; mutant protein;
KW selective splicing; molecular engineering; DNA shuffling; evolution; PCR;
KW primer; ss.
XX
OS Synthetic.
XX
PN WO200226964-A1.
XX
PD 04-APR-2002.
XX
PF 26-SEP-2001; 2001WO-JP008387.
XX
PR 27-SEP-2000; 2000JP-00293692.
PR 06-FEB-2001; 2001JP-00029138.
XX
PA (MITU) MITSUBISHI CHEM CORP.
XX
PI Tsuji T, Yanagawa H;
XX
DR WPI; 2002-340012/37.
XX
PT Constructing mutant DNA library comprises ligating unit domain DNAs in
PT arbitrary combinations before mixing in specific manner as template for
PT polymerase chain reaction to give clones, useful in producing protein
PT library.
XX
PS Example 2; Page 80; 89pp; Japanese.
XX
CC The present invention relates to a new method of constructing a mutant
CC DNA library. The method of the invention involves ligating unit domain
CC DNAs in arbitrary combinations, mixing the ligated unit domains and
CC performing polymerase chain reaction (PCR) by employing the ligated unit
CC domain DNA mixture as a template to obtain a DNA library containing 2 or
CC more clones. The method can be used for constructing a mutant DNA library
CC which is for use in producing e.g. protein library, mutant proteins and
CC artificial amino acid sequences with desirable functional properties with
CC a combination of unit domains. The method can also be used for
CC selectively splicing a library to yield mutant proteins with retention of
CC function and smaller for wider application and in evolution molecular
CC engineering in which the constructed mutant DNA library contains various
CC DNA sequence including original sequences, exons and expression-
CC regulating domains in structural DNAs. The method is easy and less error

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CC   prone in DNA shuffling when constructing DNAs. The present nucleic acid
CC   sequence represent one of a collection (ABK67951-ABK68000) of PCR primers
CC   that were used in the methods of the invention for construction of a
CC   mutant DNA library, as describe above
XX
SQ   Sequence 20 BP; 2 A; 9 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        596 CGCCGCTCCGACCTGCTGCT 615
              | || ||  ||||||||||||
Db          1 CCCCTCTATGACCTGCTGCT 20


RESULT 5047
ABK85201/c
ID   ABK85201 standard; DNA; 20 BP.
XX
AC   ABK85201;
XX
DT   13-AUG-2002  (first entry)
XX
DE   Rat PTPB1 antisense oligonucleotide ISIS 106409.
XX
KW   Antisense; protein phosphatase 1B; PTP1B; ss; probe; rat;
KW   type 2 diabetes; obesity; ovarian cancer; chronic myeloid leukaemia;
KW   hyperproliferative disease; antidiabetic; anorectic; cytostatic;
KW   blood glucose; gene therapy.
XX
OS   Rattus norvegicus.
XX
PN   US2002055479-A1.
XX
PD   09-MAY-2002.
XX
PF   14-MAY-2001; 2001US-00854883.
XX
PR   18-JAN-2000; 2000US-00487368.
PR   31-JUL-2000; 2000US-00629644.
XX
PA   (COWS/) COWSERT L M.
PA   (WYAT/) WYATT J.
PA   (FREI/) FREIER S M.
PA   (MONI/) MONIA B P.
PA   (BUTL/) BUTLER M M.
PA   (MCKA/) MCKAY R.
XX
PI   Cowsert LM,  Wyatt J,  Freier SM,  Monia BP,  Butler MM,  Mckay R;
XX
DR   WPI; 2002-462914/49.
XX
PT   Compound for inhibiting the expression of protein phosphatase 1B (PTP1B)
PT   and for treating diabetes, cancer, or obesity, comprises an antisense
PT   oligonucleotide targeted to nucleic acid encoding PTP1B.
XX
PS   Claim 3; Page 24; 133pp; English.
XX
CC   The invention relates to a compound of 8-50 nucleobases in length
CC   targeted to a nucleic acid encoding protein phosphatase 1B (PTP1B), where
CC   the compound specifically hybridises with and inhibits the expression of
CC   PTP1B (e.g. an antisense oligonucleotide). Also included are (1) a
CC   compound of 8-50 nucleobases in length which specifically hybridises with
CC   an 8 nucleobase portion of an active site on a nucleic acid encoding
CC   PTP1B; (2) inhibiting the expression of PTP1B in cells or tissues
CC   comprising contacting the cells or tissues with the compound; treating an
CC   animal having or suspected of having a disease or condition associated
CC   with PTP1B comprising administering the compound; (4) decreasing blood
CC   sugar levels in an animal comprising administering the compound; (5)
CC   preventing or delaying the onset of a disease or condition associated
CC   with PTP1B in an animal comprising administering the compound; and (6)
CC   preventing or delaying the onset of an increase in blood glucose levels
CC   in an animal comprising administering the compound. The compound is used
CC   to inhibit the expression of PTP1B in cells or tissues, to treat or
CC   prevent or delay the onset of a disease or condition associated with
CC   PTP1B, such as type 2 diabetes, obesity, cancer (especially ovarian
CC   cancer, chronic myeloid leukaemia and hyperproliferative diseases in an
CC   animal having or suspected of having the disease or condition, and for
CC   decreasing blood sugar levels or preventing or delaying the onset of an
CC   increase in blood glucose levels in an animal. The compound is also used
CC   in diagnostics, therapeutics, prophylaxis, and in research reagents and
CC   kits. The present sequence is an antisense compound of the invention
CC   targetting rat PTP1B
XX
SQ   Sequence 20 BP; 5 A; 5 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1590 ACTGGGAACCCCTCCTGGCC 1609
              ||||| | ||| ||||||  |
Db         20 ACTGGAAGCCCTTCCTGGTC 1


RESULT 5048
ABK85319
ID   ABK85319 standard; DNA; 20 BP.
XX
AC   ABK85319;
XX
DT   13-AUG-2002  (first entry)
XX
DE   Human PTP1B antisense oligonucleotide ISIS 142072.
XX
KW   Antisense; protein phosphatase 1B; PTP1B; ss; probe; human;
KW   type 2 diabetes; obesity; ovarian cancer; chronic myeloid leukaemia;
KW   hyperproliferative disease; antidiabetic; anorectic; cytostatic;
KW   blood glucose; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002055479-A1.
XX
PD   09-MAY-2002.
XX
PF   14-MAY-2001; 2001US-00854883.
XX
PR   18-JAN-2000; 2000US-00487368.
PR   31-JUL-2000; 2000US-00629644.
XX
PA   (COWS/) COWSERT L M.
PA   (WYAT/) WYATT J.
PA   (FREI/) FREIER S M.
PA   (MONI/) MONIA B P.
PA   (BUTL/) BUTLER M M.
PA   (MCKA/) MCKAY R.
XX
PI   Cowsert LM,  Wyatt J,  Freier SM,  Monia BP,  Butler MM,  Mckay R;
XX
DR   WPI; 2002-462914/49.
XX
PT   Compound for inhibiting the expression of protein phosphatase 1B (PTP1B)
PT   and for treating diabetes, cancer, or obesity, comprises an antisense
PT   oligonucleotide targeted to nucleic acid encoding PTP1B.
XX
PS   Example 22; Page 28; 133pp; English.
XX
CC   The invention relates to a compound of 8-50 nucleobases in length
CC   targeted to a nucleic acid encoding protein phosphatase 1B (PTP1B), where
CC   the compound specifically hybridises with and inhibits the expression of
CC   PTP1B (e.g. an antisense oligonucleotide). Also included are (1) a
CC   compound of 8-50 nucleobases in length which specifically hybridises with
CC   an 8 nucleobase portion of an active site on a nucleic acid encoding
CC   PTP1B; (2) inhibiting the expression of PTP1B in cells or tissues
```

```
CC   comprising contacting the cells or tissues with the compound; treating an
CC   animal having or suspected of having a disease or condition associated
CC   with PTP1B comprising administering the compound; (4) decreasing blood
CC   sugar levels in an animal comprising administering the compound; (5)
CC   preventing or delaying the onset of a disease or condition associated
CC   with PTP1B in an animal comprising administering the compound; and (6)
CC   preventing or delaying the onset of an increase in blood glucose levels
CC   in an animal comprising administering the compound. The compound is used
CC   to inhibit the expression of PTP1B in cells or tissues, to treat or
CC   prevent or delay the onset of a disease or condition associated with
CC   PTP1B, such as type 2 diabetes, obesity, cancer (especially ovarian
CC   cancer, chronic myeloid leukaemia and hyperproliferative diseases in an
CC   animal having or suspected of having the disease or condition, and for
CC   decreasing blood sugar levels or preventing or delaying the onset of an
CC   increase in blood glucose levels in an animal. The compound is also used
CC   in diagnostics, therapeutics, prophylaxis, and in research reagents and
CC   kits. The present sequence is an antisense compound of the invention
CC   targetting human PTP1B
XX
SQ   Sequence 20 BP; 5 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        350 CCTCCCTACCAGCAGCTGGC 369
              ||||| ||||||||   |||
Db          1 CCTCCTTACCAGCAAGAGGC 20


RESULT 5049
ABK85041/c
ID   ABK85041 standard; DNA; 20 BP.
XX
AC   ABK85041;
XX
DT   13-AUG-2002  (first entry)
XX
DE   Human PTP1B antisense oligonucleotide ISIS 107775.
XX
KW   Antisense; protein phosphatase 1B; PTP1B; ss; probe; human;
KW   type 2 diabetes; obesity; ovarian cancer; chronic myeloid leukaemia;
KW   hyperproliferative disease; antidiabetic; anorectic; cytostatic;
KW   blood glucose; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002055479-A1.
XX
PD   09-MAY-2002.
XX
PF   14-MAY-2001; 2001US-00854883.
XX
PR   18-JAN-2000; 2000US-00487368.
PR   31-JUL-2000; 2000US-00629644.
XX
PA   (COWS/) COWSERT L M.
PA   (WYAT/) WYATT J.
PA   (FREI/) FREIER S M.
PA   (MONI/) MONIA B P.
PA   (BUTL/) BUTLER M M.
PA   (MCKA/) MCKAY R.
XX
PI   Cowsert LM,  Wyatt J,  Freier SM,  Monia BP,  Butler MM,  Mckay R;
XX
DR   WPI; 2002-462914/49.
XX
PT   Compound for inhibiting the expression of protein phosphatase 1B (PTP1B)
PT   and for treating diabetes, cancer, or obesity, comprises an antisense
PT   oligonucleotide targeted to nucleic acid encoding PTP1B.
XX
PS   Claim 3; Page 23; 133pp; English.
XX
CC   The invention relates to a compound of 8-50 nucleobases in length
CC   targeted to a nucleic acid encoding protein phosphatase 1B (PTP1B), where
CC   the compound specifically hybridises with and inhibits the expression of
CC   PTP1B (e.g. an antisense oligonucleotide). Also included are (1) a
CC   compound of 8-50 nucleobases in length which specifically hybridises with
CC   an 8 nucleobase portion of an active site on a nucleic acid encoding
CC   PTP1B; (2) inhibiting the expression of PTP1B in cells or tissues
CC   comprising contacting the cells or tissues with the compound; treating an
CC   animal having or suspected of having a disease or condition associated
CC   with PTP1B comprising administering the compound; (4) decreasing blood
CC   sugar levels in an animal comprising administering the compound; (5)
CC   preventing or delaying the onset of a disease or condition associated
CC   with PTP1B in an animal comprising administering the compound; and (6)
CC   preventing or delaying the onset of an increase in blood glucose levels
CC   in an animal comprising administering the compound. The compound is used
CC   to inhibit the expression of PTP1B in cells or tissues, to treat or
CC   prevent or delay the onset of a disease or condition associated with
CC   PTP1B, such as type 2 diabetes, obesity, cancer (especially ovarian
CC   cancer, chronic myeloid leukaemia and hyperproliferative diseases in an
CC   animal having or suspected of having the disease or condition, and for
CC   decreasing blood sugar levels or preventing or delaying the onset of an
CC   increase in blood glucose levels in an animal. The compound is also used
CC   in diagnostics, therapeutics, prophylaxis, and in research reagents and
CC   kits. The present sequence is an antisense compound of the invention
CC   targetting human PTP1B
XX
SQ   Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        903 AAGTACAGAGGCGACTGTCC 922
              | |||||||| || | ||||
Db         20 AGGTACAGAGACGTCAGTCC 1


RESULT 5050
AAD40692
ID   AAD40692 standard; DNA; 20 BP.
XX
AC   AAD40692;
XX
DT   30-OCT-2002  (first entry)
XX
DE   Human hepsin antisense oligonucleotide, ISIS 107148.
XX
KW   Human; antisense; hepsin; inflammation; tumour; gene therapy; cytostatic;
KW   phosphorothioate backbone; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'methoxyethyl nucleotides"
FT   modified_base    2
FT                    /*tag=  d
FT                    /mod_base= m5c
FT   modified_base    3
FT                    /*tag=  e
FT                    /mod_base= m5c
FT   modified_base    6
FT                    /*tag=  f
FT                    /mod_base= m5c
FT   modified_base    16. .20
FT                    /*tag=  c
```

```
FT                   /mod_base= OTHER
FT                   /note= "2'methoxyethyl nucleotides"
XX
PN   WO200250248-A2.
XX
PD   27-JUN-2002.
XX
PF   14-DEC-2001; 2001WO-US048431.
XX
PR   20-DEC-2000; 2000US-00742703.
XX
PA   (ISIS-) ISIS PHARM INC.
PA   (ABBO ) ABBOTT LAB.
XX
PI   Marcotte PA,  Cowsert LM;
XX
DR   WPI; 2002-519883/55.
XX
PT   New antisense oligonucleotides that modulate (particularly inhibit) human
PT   hepsin, useful for treating a disease or condition associated with the
PT   expression of hepsin, e.g. inflammation or tumor growth.
XX
PS   Example 15; Page 83; 101pp; English.
XX
CC   The invention relates to an antisense compound 8-30 nucleobases in length
CC   targetted to a nucleic acid molecule encoding human hepsin. The antisense
CC   compound specifically hybridises with and inhibits the expression of
CC   human hepsin. The antisense compound or the pharmaceutical composition is
CC   useful for treating animals and humans having a disease or condition
CC   associated with the expression of hepsin, e.g. inflammation or tumour
CC   growth. The antisense compounds are useful also for diagnostics,
CC   prophylaxis (e.g. to prevent or delay infection, inflammation or tumour
CC   formation) or as research reagents and kits. The method is useful for
CC   modulating, specifically inhibiting the expression of hepsin which may be
CC   used in research, e.g to distinguish between functions of various members
CC   of a biological pathway. The invention is used in gene therapy. The
CC   present sequence is human hepsin antisense oligonucleotide
XX
SQ   Sequence 20 BP; 7 A; 3 C; 1 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1627 ACCTACCTTACTATTTAAAG 1646
              |||  | ||| |||||||||
Db          1 ACCATCTTTATTATTTAAAG 20


RESULT 5051
ABA89781/c
ID   ABA89781 standard; DNA; 20 BP.
XX
AC   ABA89781;
XX
DT   11-FEB-2002  (first entry)
XX
DE   Human oestrogen receptor 1 exon-intron boundry 5' splice donor #1.
XX
KW   Human; oestrogen receptor alpha; ESR-alpha; ER; chromosome 6; Syne-2;
KW   synaptic nuclei expressed gene 2; haplotype; cytostatic; osteopathic;
KW   cardiant; vasotropic; gene therapy; vaccine; cancer; osteoporosis;
KW   cardiovascular disease; oestrogen receptor; ds.
XX
OS   Homo sapiens.
XX
PN   WO200162969-A2.
XX
PD   30-AUG-2001.
XX
PF   20-FEB-2001; 2001WO-US005358.
XX
PR   22-FEB-2000; 2000US-0183756P.
PR   20-OCT-2000; 2000US-00692414.
PR   24-JAN-2001; 2001US-00768184.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Kalush F,  Cassel MJ,  Hwang SS,  Winn-Deen ES;
XX
DR   WPI; 2002-041152/05.
XX
PT   Novel variant of estrogen receptor alpha polypeptide useful for
PT   determining the biological activity of a protein for high throughput
PT   screening and for raising antibodies that elicit an immune response in
PT   host.
XX
PS   Example; Page 56; 333pp; English.
XX
CC   The present invention describes an isolated peptide (I) consisting of an
CC   amino acid sequence selected from: (a) the amino acid sequence of a
CC   variant of the oestrogen receptor alpha (ESR-alpha) protein in AAG68251;
CC   or (b) a fragment comprising at least 10 contiguous amino acids of the
CC   protein in AAG68251. (I) has cytostatic, osteopathic, cardiant and
CC   vasotropic activities, and can be used in gene therapy and vaccine
CC   production. (I) is useful for identifying an agent that binds to (I), by
CC   contacting (I) with an agent and assaying the contacted mixture to
CC   determine whether a complex is formed with the agent bound to the
CC   peptide. A polynucleotide (II), encoding (I), is useful in the
CC   development of diagnostics and therapies for diseases and disorders
CC   mediated/modulated by an oestrogen receptor (ER). (II) is also useful in
CC   gene therapy for treating cancer, osteoporosis and cardiovascular
CC   diseases. The human ESR-alpha gene is located on chromosome 6. ABA89779
CC   to ABA89828 represent oligonucleotides covering human ER exon-intron
CC   boundaries, and ABA89829 to ABA89868 represent oligonucleotides covering
CC   human synaptic nuclei expressed gene 2 exon-intron boundaries, which are
CC   used in an example from the present invention
XX
SQ   Sequence 20 BP; 15 A; 1 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              ||| ||  ||||||| ||||
Db         20 TTTCTTCTTCCTTTTGTTTT 1


RESULT 5052
ABN79650
ID   ABN79650 standard; DNA; 20 BP.
XX
AC   ABN79650;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Mouse Fas chimeric phosphorothioate oligonucleotide #1.
XX
KW   Mouse; immunosuppressive; antiinflammatory; hepatotropic; cytostatic;
KW   vasotropic; hepatitis; cancer; allograft rejection; ds; Fas.
XX
OS   Mus sp.
XX
PN   US2002004490-A1.
XX
PD   10-JAN-2002.
XX
PF   09-MAR-2001; 2001US-00802669.
XX
PR   12-APR-1999;   99US-00290640.
PR   18-SEP-2000; 2000US-00665615.
XX
PA   (DEAN/) DEAN N M.
PA   (MARC/) MARCUSSON E G.
PA   (WYAT/) WYATT J.
```

PA (ZHAN/) ZHANG H.
XX
PI Dean NM, Marcusson EG, Wyatt J, Zhang H;
XX
DR WPI; 2002-204886/26.
XX
PT Novel antisense compound targeted to nucleic acid encoding Fas, Fas
PT ligand or Fas associated protein-1 is useful for inhibiting expression of
PT Fas, Fas ligand, or Fap-1 in cells or tissues, and for treating
PT hepatitis.
XX
PS Claim 3; Page 17; 84pp; English.
XX
CC This invention relates to an antisense compound encoding Fas, Fas ligand,
CC or Fas associated protein-1 (Fap-1). The inhibition of Fas mediated
CC signalling is thought to be immunosuppressive, antiinflammatory,
CC hepatotropic, cytostatic and vasotropic. Antisense oligonucleotides were
CC designed to target human Fas. Oligonucleotides were synthesised as
CC chimeric oligonucleotides and are useful for treating an animal having an
CC autoimmune or inflammatory disease e.g., hepatitis, cancer, a condition
CC associated with apoptosis, allograft rejection, or ischemia reperfusion
CC injury. Optionally, the above mentioned conditions are prevented by
CC contacting the allograft with the antisense oligonucleotide. The
CC oligonucleotides are used in diagnostics, therapeutics, prophylaxis and
CC as research reagents and in kits. The oligonucleotides are also useful
CC for research purposes. The present nucleotide sequence is related to
CC mouse Fas
XX
SQ Sequence 20 BP; 8 A; 4 C; 8 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy        231 GCAGCAATGGGAATCCGCGG 250
              ||||||| || || | ||||
Db          1 GCAGCAAGGGAAAACAGCGG 20
```

RESULT 5053
ABS54903/c
ID ABS54903 standard; DNA; 20 BP.
XX
AC ABS54903;
XX
DT 03-DEC-2002 (first entry)
XX
DE Bovine breed discrimination method PCR primer #3.
XX
KW Bovine; breed discrimination; cow; domestic origin beef; primer;
KW foreign origin beef; single nucleotide polymorphism; SNP; PCR; ss.
XX
OS Bos taurus.
XX
PN JP2002209581-A.
XX
PD 30-JUL-2002.
XX
PF 12-JAN-2001; 2001JP-00005368.
XX
PR 12-JAN-2001; 2001JP-00005368.
XX
PA (BMLB-) BML KK.
PA (NISH-) ZH NIPPON SHOKUNIKU SHOHI SOGO CENT.
XX
DR WPI; 2002-670037/72.
XX
PT A bovine breed discrimination method from beef sample with single
PT nucleotide polymorphisms (SNP) of Japanese Black and Holstein Friesian
PT cattle.
XX
PS Disclosure; Page 10; 15pp; Japanese.
XX
CC The present invention relates to a new method for discrimination of
CC domestic and foreign origin beef with single nucleotide polymorphisms
CC (SNP). The invention is useful for discrimination of domestic and foreign
CC origin beef with SNP. The method of the invention is advantageous as it
CC allows effective discrimination of beef with SNP. The present nucleic
CC acid sequence represents a PCR primer that was used in the method of the
CC invention
XX
SQ Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy        778 TCTGAACCTCCCCTGTCAGA 797
              |||| | || ||||| ||||
Db         20 TCTGCAACTTCCCTGACAGA 1
```

RESULT 5054
ABL43506
ID ABL43506 standard; DNA; 20 BP.
XX
AC ABL43506;
XX
DT 11-APR-2002 (first entry)
XX
DE Human chromosome 1p36-35 PCR primer SEQ ID NO:550.
XX
KW Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW PCR primer; ss.
XX
OS Homo sapiens.
XX
PN JP2001321190-A.
XX
PD 20-NOV-2001.
XX
PF 12-MAR-2001; 2001JP-00068285.
XX
PR 10-MAR-2000; 2000JP-00066716.
XX
PA (RIKA) RIKAGAKU KENKYUSHO.
PA (GENO-) GENOTEX YG.
XX
DR WPI; 2002-144136/19.
XX
PT Arraying genome clones.
XX
PS Claim 4; Page 15; 528pp; Japanese.
XX
CC The present invention describes a method of arraying genome clones. The
CC method comprises: (a) clones of the genomic libraries contained in
CC multiwell plates numbered for discrimination are mixed in each of the
CC multiwell plates; (b) a primer designed based on the chromosome marker
CC sequence is added to the mixture to carry out an amplification reaction;
CC (c) a signal corresponding to the marker is detected from the resultant
CC amplified product to specify the discrimination Nos. of the multiwell
CC plates containing the clones having said marker sequence; (d) the order
CC of the markers is changed so that the same discrimination Nos. succeed to
CC the maximum in the specified discrimination Nos. to array the multiwell
CC plates; (e) the clones in the multiwell plates of the specified
CC discrimination Nos. are mixed respectively in each wells of longitudinal
CC and lateral directions; (f) the mixed clones are cultured and the
CC resultant cultures are amplified by using the above primer; (g) signals
CC are detected from the amplified products; (h) the clones in the multiwell
CC plates are specified from the detected result; and (i) the clones are
CC reconstituted as the positions on the chromosome and arrayed. The
CC microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC represent PCR primers for human chromosome 21q22.1, which are
CC specifically claimed for use in the present invention
XX

```
SQ   Sequence 20 BP; 2 A; 6 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         20 TGTCCAGTGACCCGGACAGC 39
              ||| | ||||||| ||| ||
Db          1 TGTTCTGTGACCCTGACTGC 20


RESULT 5055
ABL43971/c
ID   ABL43971 standard; DNA; 20 BP.
XX
AC   ABL43971;
XX
DT   11-APR-2002  (first entry)
XX
DE   Human chromosome 1p36-35 PCR primer SEQ ID NO:1015.
XX
KW   Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW   PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2001321190-A.
XX
PD   20-NOV-2001.
XX
PF   12-MAR-2001; 2001JP-00068285.
XX
PR   10-MAR-2000; 2000JP-00066716.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
PA   (GENO-) GENOTEX YG.
XX
DR   WPI; 2002-144136/19.
XX
PT   Arraying genome clones.
XX
PS   Claim 4; Page 25; 528pp; Japanese.
XX
CC   The present invention describes a method of arraying genome clones. The
CC   method comprises: (a) clones of the genomic libraries contained in
CC   multiwell plates numbered for discrimination are mixed in each of the
CC   multiwell plates; (b) a primer designed based on the chromosome marker
CC   sequence is added to the mixture to carry out an amplification reaction;
CC   (c) a signal corresponding to the marker is detected from the resultant
CC   amplified product to specify the discrimination Nos. of the multiwell
CC   plates containing the clones having said marker sequence; (d) the order
CC   of the markers is changed so that the same discrimination Nos. succeed to
CC   the maximum in the specified discrimination Nos. to array the multiwell
CC   plates; (e) the clones in the multiwell plates of the specified
CC   discrimination Nos. are mixed respectively in each wells of longitudinal
CC   and lateral directions; (f) the mixed clones are cultured and the
CC   resultant cultures are amplified by using the above primer; (g) signals
CC   are detected from the amplified products; (h) the clones in the multiwell
CC   plates are specified from the detected result; and (i) the clones are
CC   reconstituted as the positions on the chromosome and arrayed. The
CC   microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC   PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC   represent PCR primers for human chromosome 21q22.1, which are
CC   specifically claimed for use in the present invention
XX
SQ   Sequence 20 BP; 5 A; 4 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2423 ATACTGGTGCACTTCTTACG 2442
              ||||||| ||| |||  |||
Db         20 ATACTGGAGCATTTCCCACG 1


RESULT 5056
ABL43508
ID   ABL43508 standard; DNA; 20 BP.
XX
AC   ABL43508;
XX
DT   11-APR-2002  (first entry)
XX
DE   Human chromosome 1p36-35 PCR primer SEQ ID NO:552.
XX
KW   Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW   PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2001321190-A.
XX
PD   20-NOV-2001.
XX
PF   12-MAR-2001; 2001JP-00068285.
XX
PR   10-MAR-2000; 2000JP-00066716.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
PA   (GENO-) GENOTEX YG.
XX
DR   WPI; 2002-144136/19.
XX
PT   Arraying genome clones.
XX
PS   Claim 4; Page 15; 528pp; Japanese.
XX
CC   The present invention describes a method of arraying genome clones. The
CC   method comprises: (a) clones of the genomic libraries contained in
CC   multiwell plates numbered for discrimination are mixed in each of the
CC   multiwell plates; (b) a primer designed based on the chromosome marker
CC   sequence is added to the mixture to carry out an amplification reaction;
CC   (c) a signal corresponding to the marker is detected from the resultant
CC   amplified product to specify the discrimination Nos. of the multiwell
CC   plates containing the clones having said marker sequence; (d) the order
CC   of the markers is changed so that the same discrimination Nos. succeed to
CC   the maximum in the specified discrimination Nos. to array the multiwell
CC   plates; (e) the clones in the multiwell plates of the specified
CC   discrimination Nos. are mixed respectively in each wells of longitudinal
CC   and lateral directions; (f) the mixed clones are cultured and the
CC   resultant cultures are amplified by using the above primer; (g) signals
CC   are detected from the amplified products; (h) the clones in the multiwell
CC   plates are specified from the detected result; and (i) the clones are
CC   reconstituted as the positions on the chromosome and arrayed. The
CC   microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC   PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC   represent PCR primers for human chromosome 21q22.1, which are
CC   specifically claimed for use in the present invention
XX
SQ   Sequence 20 BP; 2 A; 6 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         20 TGTCCAGTGACCCGGACAGC 39
              ||| | ||||||| ||| ||
Db          1 TGTTCTGTGACCCTGACTGC 20


RESULT 5057
ABA98707
ID   ABA98707 standard; DNA; 20 BP.
XX
AC   ABA98707;
```

```
XX
DT   13-MAY-2002  (first entry)
XX
DE   PCR primer R1.
XX
KW   FRET; nucleic acid amplification; PCR primer;
KW   fluorescence resonance energy transfer; disease diagnosis;
KW   food-borne pathogen detection; microbial detection;
KW   allelic discrimination; genotyping; gene expression analysis; ss.
XX
OS   Synthetic.
XX
PN   WO200194638-A2.
XX
PD   13-DEC-2001.
XX
PF   06-JUN-2001; 2001WO-US018464.
XX
PR   06-JUN-2000; 2000US-0209883P.
PR   05-JUN-2001; 2001US-00875211.
XX
PA   (APPL-) APPLERA CORP.
XX
PI   Chen C,  Egholm M,  Haff L;
XX
DR   WPI; 2002-216734/27.
XX
PT   Novel asynchronous thermal cycling method for amplification of target
PT   nucleic acid, involves two annealing and two extension steps employing
PT   two primers which differ in their thermal melting temperatures.
XX
PS   Example 3; Page 37; 87pp; English.
XX
CC   The present invention relates to a method for amplifying nucleic acid.
CC   The method comprises annealing a primer (P1) to first strand (S1) of
CC   denatured target nucleic acid (dNA) at annealing temperature (T1);
CC   extending P1 at T1 or extension temperature (E1) to generate double-
CC   stranded (ds) nucleic acid; annealing primer (P2) to second strand (S2)
CC   of dNA at annealing temperature (T2); extending P2 to generate dsNA;
CC   denaturing target dsNA into S1 and S2. A probe hybridisation step may be
CC   incorporated into the cycle. A detectable probe is annealed to S2 of
CC   denatured target nucleic acid at a probe hybridisation temperature. The
CC   method is useful for amplifying target nucleic acid, preferably a
CC   plasmid, cDNA, amplicon, genomic DNA, restriction digest or a ligation
CC   product, or a target comprising single nucleotide polymorphisms. The
CC   asynchronous PCR cycle has utility in nuclease cleavage assay with a
CC   cleaving DNA fluorescence resonance energy transfer (FRET) probe, in
CC   assays for human disease diagnosis, food-borne pathogen detection and
CC   microbial detection, for allelic discrimination of target DNA, and in
CC   genotyping and gene expression analysis. The present sequence is a PCR
CC   primer, which was used to illustrate the method of the invention
XX
SQ   Sequence 20 BP; 0 A; 9 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        247 GCGGGTCCCCCACCTCTCCT 266
              || |||||||  | ||||||
Db          1 GCTGGTCCCCGTCTTCTCCT 20


RESULT 5058
ABV72239
ID   ABV72239 standard; DNA; 20 BP.
XX
AC   ABV72239;
XX
DT   05-DEC-2002  (first entry)
XX
DE   Antisense oligonucleotide targeting human IGF-II mRNA.
XX
KW   Antisense oligonucleotide; insulin-like growth factor II; IGF-II;
KW   tumour growth; proliferative disorder; cancer; psoriasis;
KW   atherosclerosis; ss.
XX
OS   Homo sapiens.
XX
PN   US6417169-B1.
XX
PD   09-JUL-2002.
XX
PF   22-APR-1999;   99US-00295593.
XX
PR   23-APR-1998;   98US-0082791P.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA,  Young AH,  Lee YS;
XX
DR   WPI; 2002-634739/68.
XX
PT   Novel antisense compounds targeted to insulin-like growth factor mRNA,
PT   useful for inhibiting tumor growth and metastasis in mammals.
XX
PS   Claim 16; Col 11; 40pp; English.
XX
CC   ABV72238-53 represent antisense oligonucleotides which are targeted to
CC   human insulin-like growth factor II (IGF-II) mRNA. The antisense
CC   oligonucleotides are preferably complementary to 5' untranslated region
CC   consisting of exons 4, 5 or 6 of human fetal IGF-II mRNA. The antisense
CC   oligonucleotides of the invention are useful for inhibiting the growth of
CC   human tumour, where a chemotherapeutic agent is also administered. They
CC   are also useful for treating proliferative disorders including various
CC   forms of cancers, psoriasis, and atherosclerosis, as hybridisation probes
CC   to detect the presence of IGF-II mRNA in mammalian cells, and as
CC   molecular weight markers
XX
SQ   Sequence 20 BP; 2 A; 12 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        251 GTCCCCCACCTCTCCTCCGC 270
              |||| ||| ||| || ||||
Db          1 GTCCACCAGCTCCCCGCCGC 20


RESULT 5059
ABQ81884/c
ID   ABQ81884 standard; DNA; 20 BP.
XX
AC   ABQ81884;
XX
DT   19-NOV-2002  (first entry)
XX
DE   Kaposi's Sarcoma related PCR primer SEQ ID NO:34.
XX
KW   Human; Kaposi's sarcoma; tumour; angiogenesis; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   EP1225233-A2.
XX
PD   24-JUL-2002.
XX
PF   23-JAN-2002; 2002EP-00075264.
XX
PR   23-JAN-2001; 2001EP-00200228.
PR   28-SEP-2001; 2001EP-00203703.
PR   28-SEP-2001; 2001US-0325722P.
XX
PA   (AMST-) AMSTERDAM SUPPORT DIAGNOSTICS BV.
XX
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```
PI   Van Der Kuyl AC,  Cornelissen M;
XX
DR   WPI; 2002-668396/72.
XX
PT   Determining presence of a tumor cell or angiogenesis, and the
PT   effectiveness of treatment, by detecting the presence of marker genes is
PT   useful to detect and monitor treatment of Karposi's Sarcoma.
XX
PS   Example 8; Page 11; 38pp; English.
XX
CC   The present invention describes a method for determining if an individual
CC   has a tumour cell or site of angiogenesis, or if a treatment is effective
CC   in changing angiogenesis or changing a status of a set of target cells,
CC   comprising determining if a sample of the subject has an expression
CC   product of at least one marker gene. Also described is a compound capable
CC   of altering the expression or activity of Keratin 14, TIE 1, Salioadhesin
CC   or Siglec in a cell. Peripheral blood mononuclear cell (PBMC)-expressed
CC   Keratin 14, TIE 1, Salioadhesin or Siglec, and kits containing them from
CC   the present invention can be used in a diagnostic method, particularly as
CC   an indicator of angiogenesis or to determine presence of a tumour cell.
CC   The method of the invention is suitable to determine within a few days if
CC   a certain treatment against Kaposi's Sarcoma is successful. ABQ81851 to
CC   ABQ82006 represent nucleotide sequence used in the exemplification of the
CC   present invention
XX
SQ   Sequence 20 BP; 8 A; 6 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2343 CCCGTGGAGGTTCTGTATTT 2362
              || ||||||||  ||| |||
Db         20 CCAGTGGAGGTCATGTTTTT 1


RESULT 5060
ABK37370/c
ID   ABK37370 standard; DNA; 20 BP.
XX
AC   ABK37370;
XX
DT   08-MAY-2002  (first entry)
XX
DE   Rat PTP1B mRNA level inhibition antisense DNA #87.
XX
KW   Human; mouse; rat; protein tyrosine phosphatase 1B; PTP1B; ss; adipose;
KW   liver; kidney; metabolic disease; type 2 diabetes; obesity; cancer;
KW   hyperproliferative condition; blood serum; blood plasma; antidiabetic;
KW   blood glucose level; cytostatic; anorectic; antisense gene therapy;
KW   PTP1B mRNA level inhibition.
XX
OS   Rattus norvegicus.
XX
PN   WO200210378-A2.
XX
PD   07-FEB-2002.
XX
PF   30-JUL-2001; 2001WO-US023874.
XX
PR   31-JUL-2000; 2000US-00629644.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM,  Wyatt J,  Freier SM,  Monia BP,  Butler MM,  Mckay R;
XX
DR   WPI; 2002-180079/23.
XX
PT   Novel antisense compound useful for treating type 2 diabetes, cancer and
PT   obesity, is targeted to nucleic acid encoding human protein phosphatase
PT   1B, and hybridizes and inhibits PTP1B expression.
XX
PS   Claim 3; Page 72; 142pp; English.
XX
CC   The invention relates to a compound targeted to a nucleic acid molecule
CC   encoding protein phosphatase 1B (PTP1B), which specifically hybridises
CC   with and inhibits the expression of PTP1B. The compounds of the invention
CC   are useful for inhibiting the expression of PTP1B in liver, kidney or
CC   adipose cells or tissues and for treating an animal, preferably human,
CC   having a disease or condition associated with PTP1B, including metabolic
CC   diseases or conditions, e.g. type 2 diabetes and obesity, or
CC   hyperproliferative conditions such as cancer. The sequences are also
CC   useful for decreasing blood (serum or plasma) glucose levels in an animal
CC   e.g. a diabetic human or rodent, for preventing or delaying the onset of
CC   a disease or condition associated with PTP1B , and for preventing or
CC   delaying the onset of an increase in blood glucose levels. This sequence
CC   represents a PTP1B mRNA level inhibition antisense oligonucleotide of the
CC   invention
XX
SQ   Sequence 20 BP; 5 A; 5 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1590 ACTGGGAACCCCTCCTGGCC 1609
              ||||| | ||| ||||||  |
Db         20 ACTGGAAGCCCTTCCTGGTC 1


RESULT 5061
ABK37210/c
ID   ABK37210 standard; DNA; 20 BP.
XX
AC   ABK37210;
XX
DT   08-MAY-2002  (first entry)
XX
DE   Human PTP1B mRNA level inhibition antisense DNA #7.
XX
KW   Human; mouse; rat; protein tyrosine phosphatase 1B; PTP1B; ss; adipose;
KW   liver; kidney; metabolic disease; type 2 diabetes; obesity; cancer;
KW   hyperproliferative condition; blood serum; blood plasma; antidiabetic;
KW   blood glucose level; cytostatic; anorectic; antisense gene therapy;
KW   PTP1B mRNA level inhibition.
XX
OS   Homo sapiens.
XX
PN   WO200210378-A2.
XX
PD   07-FEB-2002.
XX
PF   30-JUL-2001; 2001WO-US023874.
XX
PR   31-JUL-2000; 2000US-00629644.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM,  Wyatt J,  Freier SM,  Monia BP,  Butler MM,  Mckay R;
XX
DR   WPI; 2002-180079/23.
XX
PT   Novel antisense compound useful for treating type 2 diabetes, cancer and
PT   obesity, is targeted to nucleic acid encoding human protein phosphatase
PT   1B, and hybridizes and inhibits PTP1B expression.
XX
PS   Claim 3; Page 67; 142pp; English.
XX
CC   The invention relates to a compound targeted to a nucleic acid molecule
CC   encoding protein phosphatase 1B (PTP1B), which specifically hybridises
CC   with and inhibits the expression of PTP1B. The compounds of the invention
CC   are useful for inhibiting the expression of PTP1B in liver, kidney or
CC   adipose cells or tissues and for treating an animal, preferably human,
CC   having a disease or condition associated with PTP1B, including metabolic
CC   diseases or conditions, e.g. type 2 diabetes and obesity, or
CC   hyperproliferative conditions such as cancer. The sequences are also
```

```
CC   useful for decreasing blood (serum or plasma) glucose levels in an animal
CC   e.g. a diabetic human or rodent, for preventing or delaying the onset of
CC   a disease or condition associated with PTP1B , and for preventing or
CC   delaying the onset of an increase in blood glucose levels. This sequence
CC   represents a PTP1B mRNA level inhibition antisense oligonucleotide of the
CC   invention
XX
SQ   Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        903 AAGTACAGAGGCGACTGTCC 922
              | |||||||| || | ||||
Db         20 AGGTACAGAGACGTCAGTCC 1


RESULT 5062
AAD35748
ID   AAD35748 standard; DNA; 20 BP.
XX
AC   AAD35748;
XX
DT   26-JUL-2002  (first entry)
XX
DE   Human hIbeta4BP antisense oligonucleotide, ISIS #129469.
XX
KW   Antisense; human Integrin beta 4 binding protein; hIbeta4BP; cytostatic;
KW   cell proliferation; cancer; gene therapy; phosphorothioate backbone; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'methoxyethyl nucleotides"
FT   modified_base    1
FT                    /*tag=  d
FT                    /mod_base= m5c
FT   modified_base    4
FT                    /*tag=  e
FT                    /mod_base= m5c
FT   modified_base    5
FT                    /*tag=  f
FT                    /mod_base= m5c
FT   modified_base    8
FT                    /*tag=  g
FT                    /mod_base= m5c
FT   modified_base    12
FT                    /*tag=  h
FT                    /mod_base= m5c
FT   modified_base    14
FT                    /*tag=  i
FT                    /mod_base= m5c
FT   modified_base    15
FT                    /*tag=  j
FT                    /mod_base= m5c
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "2'methoxyethyl nucleotides"
FT   modified_base    20
FT                    /*tag=  k
FT                    /mod_base= m5c
XX
PN   US6355482-B1.
XX
PD   12-MAR-2002.
XX
PF   17-NOV-2000; 2000US-00716161.
XX
PR   17-NOV-2000; 2000US-00716161.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Freier SM;
XX
DR   WPI; 2002-370579/40.
XX
PT   New antisense compound targeted to a region of a nucleic acid encoding
PT   human Integrin beta 4 binding protein and that inhibits expression of the
PT   nucleic acid, for treating e.g. cancer.
XX
PS   Claim 3; Col 45-46; 40pp; English.
XX
CC   The invention relates to antisense compounds targetted to a nucleic acid
CC   encoding human Integrin beta 4 binding protein (hIbeta4BP), which
CC   specifically hybridises with the nucleic acid and inhibits its
CC   expression. The antisense compounds are useful to prevent or treat
CC   diseases associated with hIbeta4BP expression, particularly conditions
CC   involving aberrant or deregulated cell proliferation (e.g. cancer). The
CC   hIbeta4BP polynucleotide is used in gene therapy. The present sequence is
CC   an antisense oligonucleotide targetted to hIbeta4BP
XX
SQ   Sequence 20 BP; 3 A; 8 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        351 CTCCCTACCAGCAGCTGGCC 370
              || ||||| |||| |||| |
Db          1 CTTCCTACTAGCACCTGGTC 20


RESULT 5063
ABL60762
ID   ABL60762 standard; DNA; 20 BP.
XX
AC   ABL60762;
XX
DT   10-SEP-2002  (first entry)
XX
DE   Human SPHK1 cDNA cloning antisense primer hspk1-GSP3.
XX
KW   Sphingosine kinase; SPHK; SPHK1; cytostatic; vasotropic; antidiabetic;
KW   neuroprotective; human; enzyme; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002042358-A1.
XX
PD   11-APR-2002.
XX
PF   02-MAR-2001; 2001US-00796487.
XX
PR   02-MAR-2000; 2000US-0186352P.
XX
PA   (SPIE/) SPIEGEL S.
XX
PI   Spiegel S;
XX
DR   WPI; 2002-478846/51.
XX
PT   New isolated sphingosine kinase, useful in identifying modulators for
PT   treating e.g. cancer, also related nucleic acid, vectors and transformed
PT   cells.
XX
PS   Disclosure; Page 3; 24pp; English.
XX
```

```
CC   The invention relates to an isolated sphingosine kinase (SPHK) DNA. Cells
CC   transformed with SPHK DNA are used to screen for agents that reduce,
CC   eliminate or promote SPHK activity. Agents that inhibit activity are
CC   useful for decreasing cell proliferation, e.g. for treating cancer, and
CC   for treating diseases associated with abnormal migration and motility of
CC   cells, e.g. restenosis or diabetic neuropathy. Agents that increase
CC   activity are used to reduce cell death. Antibodies raised against SPHK,
CC   and primers or oligonucleotides derived from the DNA are useful for
CC   diagnosis. The antibodies are also useful as therapeutic inhibitors. The
CC   present sequence represents a PCR primer for cloning the human
CC   sphingosine kinase 1 (hSPHK1) cDNA
XX
SQ   Sequence 20 BP; 5 A; 5 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        479 GGCCGCCAGAGCCAGGAGGG 498
              ||| ||||||  ||||| ||
Db          1 GGCTGCCAGACGCAGGAAGG 20


RESULT 5064
ABA97633
ID   ABA97633 standard; DNA; 20 BP.
XX
AC   ABA97633;
XX
DT   11-APR-2002  (first entry)
XX
DE   Poly o nucleotide sequence.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTT 2185
              | | | | ||||||||||||

Db          1 TATATATATTTTTTTTTTT 20


RESULT 5065
ABA97638/c
ID   ABA97638 standard; DNA; 20 BP.
XX
AC   ABA97638;
XX
DT   11-APR-2002  (first entry)
XX
DE   Poly t nucleotide sequence.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 1 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAAAA 2804
              |||||||||||| | | | |
Db         20 GAAAAAAAAAAATATATATA 1


RESULT 5066
ABA97639
ID   ABA97639 standard; DNA; 20 BP.
XX
AC   ABA97639;
XX
DT   11-APR-2002  (first entry)
XX
DE   Poly u nucleotide sequence.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
```

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XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTT 2185
              | | | | ||||||||||||
Db          1 TATATATATTTTTTTTTTT 20


RESULT 5067
ABQ78543
ID   ABQ78543 standard; DNA; 20 BP.
XX
AC   ABQ78543;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Antisense oligodeoxynucleotide of the human bcl-2 gene.
XX
KW   Antisense oligonucleotide; B cell lymphoma/leukemia-2 gene; bcl-2 gene;
KW   cancer; lymphoma; leukemia; chemotherapeutic agent; bone marrow purging;
KW   autoimmune disease; ss.
XX
OS   Homo sapiens.
XX
PN   US6414134-B1.
XX
PD   02-JUL-2002.
XX
PF   28-NOV-2000; 2000US-00724426.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
PR   20-SEP-1993;   93US-00124256.
PR   05-JUN-1995;   95US-00465485.
PR   18-MAY-1998;   98US-00080285.
PR   17-AUG-1999;   99US-00375514.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed JC;
XX
DR   WPI; 2002-641579/69.
XX
PT   Novel antisense oligonucleotide complementary to B cell lymphoma/leukemia
PT   -2 mRNA, useful for inhibiting cancer cell growth, for treating
PT   autoimmune disorders, and for ex vivo bone marrow purging.
XX
PS   Disclosure; Fig 13B; 41pp; English.
XX
CC   The present sequence represents an antisense oligonucleotide
CC   complementary to B cell lymphoma/leukemia-2 (bcl-2) mRNA. The antisense
CC   oligonucleotide is useful for inhibiting cancer cell (lymphoma or
CC   leukemia cells) growth, for increasing the sensitivity of cancer cells to
CC   cancer chemotherapeutic agents, or for inducing cancer cell death alone
CC   or in combination with any one or more cancer chemotherapeutic agents. It
CC   is also useful for reducing the bcl-2 gene expression or impairing bcl-2
CC   protein function, for ex vivo bone marrow purging, for removing residual
CC   malignant cells from the bone marrow, for inhibiting cancer of neoplastic
CC   cell growth, and for treating autoimmune disease
XX
SQ   Sequence 20 BP; 1 A; 6 C; 13 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         49 GCGCGGCGGGGGCGGCGGCA 68
              |||||||||| | |  ||||
Db          1 GCGCGGCGGGCGGGCGGGCA 20


RESULT 5068
ABT13059/c
ID   ABT13059 standard; DNA; 20 BP.
XX
AC   ABT13059;
XX
DT   30-JAN-2003  (first entry)
XX
DE   Human apolipoprotein A-IV PCR primer (SNP specific) #25.
XX
KW   Human; PCR; primer; ss; gene therapy; single nucleotide polymorphism;
KW   cytochrome C oxidase subunit VIb; COX6B; high serum cholesterol; GPI-1;
KW   N-acetylglucosaminyl transferase component; cardiovascular disease; HDL;
KW   glycosylphosphatidylinositol-1; SNP; low serum high density lipoprotein.
XX
OS   Homo sapiens.
XX
PN   WO200272604-A2.
XX
PD   19-SEP-2002.
XX
PF   05-MAR-2002; 2002WO-US006728.
XX
PR   09-MAR-2001; 2001US-00802640.
XX
PA   (SEQU-) SEQUENOM INC.
XX
PI   Braun A,  Bansal A,  Kleyn PW;
XX
DR   WPI; 2002-750478/81.
XX
PT   Detecting the presence or absence of an allelic variant of a polymorphic
PT   region of COX6B and/or GPI-1 gene, useful for detecting a predisposition
PT   to high serum cholesterol, low serum HDL and cardiovascular disease.
XX
PS   Disclosure; Page 33; 199pp; English.
XX
CC   The invention comprises methods of detecting the presence or absence of
CC   at least one allelic variant of a polymorphic region of a gene associated
CC   with cardiovascular disease. The invention specifically relates to
CC   detecting the region of a cytochrome C oxidase subunit VIb (COX6B) gene
CC   that is associated with high serum cholesterol, or the region of the N-
CC   acetylglucosaminyl transferase component glycosylphosphatidylinositol-1
CC   (GPI-1) gene that is associated with low serum high density lipoprotein
CC   (HDL). The methods of the invention are useful for detecting a
CC   predisposition to high serum cholesterol, low serum HDL and
CC   cardiovascular disease. The methods are also useful for elucidating
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CC   pathological pathways, developing diagnostic assays and new drug
CC   therapies for such disorders. The present DNA sequence represents a PCR
CC   primer used to amplify a human gene that is associated with high serum
CC   cholesterol, low serum HDL and/or cardiovascular disease
XX
SQ   Sequence 20 BP; 3 A; 6 C; 7 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        642 CGGGCCTGGCCGAGAACCTG 661
              | |  |||||||||| ||||
Db         20 CAGCACTGGCCGAGATCCTG 1


RESULT 5069
ABK28025
ID   ABK28025 standard; DNA; 20 BP.
XX
AC   ABK28025;
XX
DT   09-APR-2002  (first entry)
XX
DE   Human CSNK2B methylation state PCR primer #1.
XX
KW   Human; ss; astrocytoma; oligoastrocytoma; oligodendroglioma; antitumour;
KW   cytostatic; cytosine methylation state; single nucleotide polymorphism;
KW   SNP; CpG; brain tumour; PCR; primer.
XX
OS   Homo sapiens.
XX
PN   WO200200705-A2.
XX
PD   03-JAN-2002.
XX
PF   02-JUL-2001; 2001WO-EP007539.
XX
PR   30-JUN-2000; 2000DE-01032529.
PR   01-SEP-2000; 2000DE-01043826.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2002-139900/18.
XX
PT   Oligonucleotide for diagnosing and treating tumors and cancer especially
PT   gliomas, astrocytomas and oligodendromas, comprises chemically modified
PT   genomic sequences of genes associated with tumors and cancers.
XX
PS   Example 4; Page 20; 31pp; English.
XX
CC   The invention relates to a nucleic acid (I) comprising a sequence of at
CC   least 18 bases of a segment of chemically pretreated genomic DNA (II)
CC   according to one of the sequences (S1) selected from 120 sequences, and
CC   its complementary sequences. Also included are an oligomer (III),
CC   especially an oligonucleotide or peptide nucleic acid (PNA)-oligomer,
CC   comprising a sequence of at least 9 nucleotides which hybridises to or is
CC   identical to (II), and complementary sequences, a set of oligomers (IV)
CC   comprising at least two (III) and their use for detecting the cytosine
CC   methylation state and/or single nucleotide polymorphisms (SNPs) in (II),
CC   and manufacturing (M1) an arrangement of different oligomers (array)
CC   fixed to a carrier material for analysing diseases associated with the
CC   methylation state of the CpG dinucleotide of (S1), where at least one
CC   oligomer is coupled to solid phase. The set of oligomers (IV) are useful
CC   as primer oligonucleotides for the amplification of (II) especially for
CC   characterising classifying and differentiating oligodendroglioma,
CC   astrocytoma and oligoastrocytoma tumours (by ascertaining genetic and/or
CC   epigenetic parameters of genomic DNA by analysing cytosine methylation
CC   and single nucleotide polymorphisms). The present sequence is a PCR
CC   primer used to amplify the modified genomic sequence from a gene
CC   associated with brain tumours
XX
SQ   Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2683 GGTGAAATGGAGATTTGGAA 2702
              || |||||||||| || ||
Db          1 GGGGAAATGGAGAAGTGTAA 20


RESULT 5070
ABK69224
ID   ABK69224 standard; DNA; 20 BP.
XX
AC   ABK69224;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human phosphorylase kinase alpha 2 antisense oligonucleotide ISIS 118791.
XX
KW   Antisense; phosphorylase kinase alpha 2; metabolic disorder; ss;
KW   antidiabetic; antiinflammatory; antimicrobial; cytostatic; diabetes;
KW   infection; inflammation; tumour; human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
FT   modified_base   1. .20
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "All cytosines are 5-methylcytosine"
FT   modified_base   1. .5
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-O_methoxyethyl residues"
FT   modified_base   16. .20
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "2'-O_methoxyethyl residues"
XX
PN   WO200220716-A2.
XX
PD   14-MAR-2002.
XX
PF   29-AUG-2001; 2001WO-US027065.
XX
PR   07-SEP-2000; 2000US-00657453.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Wyatt JR;
XX
DR   WPI; 2002-351772/38.
XX
PT   New antisense compounds targeted to nucleic acids encoding phosphorylase
PT   kinase alpha-2, useful for modulating gene expression and treating
PT   diseases associated with expression of phosphorylase kinase alpha-2 in
PT   humans.
XX
PS   Claim 3; Page 78; 119pp; English.
XX
CC   The invention relates to an antisense compound 8-30 nucleobases in length
CC   targeted to a nucleic acid encoding phosphorylase kinase alpha-2, which
CC   specifically hybridizes with and inhibits the expression of phosphorylase
CC   kinase alpha-2. The antisense compound is useful for inhibiting the
CC   expression of phosphorylase kinase alpha-2 in human cells or tissues, and
CC   for treating a human having a disease or condition associated with
```

```
CC   phosphorylase kinase alpha-2 including metabolic disorder or diabetes.
CC   The antisense compound is useful for diagnostics, therapeutics,
CC   prophylaxis and as research reagent, in kits and is useful
CC   prophylactically to prevent or delay infection, inflammation or tumour
CC   formation. The antisense compound is safely and effectively administered
CC   to humans. The present sequence is an antisense oligonucleotide of the
CC   invention targetting human phopsphorylase kinase alpha 2
XX
SQ   Sequence 20 BP; 7 A; 4 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2455 CATGGGATCCAATTTTAATA 2474
              ||||||| ||| ||| || |
Db          1 CATGGGAGCCATTTTAAACA 20


RESULT 5071
ABK88956
ID   ABK88956 standard; DNA; 20 BP.
XX
AC   ABK88956;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Interleukin-10 (IL-10) DNA PCR primer #2.
XX
KW   Interleukin-10; IL-10; PCR; ss; Th1-type T cell response; primer;
KW   Th2 cytokine; demyelinating disease; multiple sclerosis; antirheumatic;
KW   experimental autoimmune encephalitis; rheumatoid arthritis; antidiabetic;
KW   insulin dependent diabetes mellitus; immunosuppressive; neuroprotective;
KW   antiinflammatory; antiarthritic.
XX
OS   Unidentified.
XX
PN   US2002068715-A1.
XX
PD   06-JUN-2002.
XX
PF   05-SEP-2001; 2001US-00947770.
XX
PR   10-MAR-2000; 2000WO-US006233.
XX
PA   (STEI/) STEINMAN L.
PA   (RUIZ/) RUIZ P.
PA   (GARR/) GARREN H.
XX
PI   Steinman L,  Ruiz P,  Garren H;
XX
DR   WPI; 2002-582492/62.
XX
PT   Treating autoimmune diseases, e.g. demyelinating diseases in a mammal by
PT   co-administering a DNA encoding an autoantigen associated with the
PT   disease and DNA encoding a Th2 cytokine, particularly encoding
PT   interleukin-4.
XX
PS   Example 3; Page 15; 36pp; English.
XX
CC   The invention relates to treating an autoimmune disease in a mammal
CC   comprising introducing a DNA expression cassette with a sequence encoding
CC   at least a portion of an autoantigen associated with a pro-inflammatory,
CC   Th1-type T cell response under regulatory control of a promoter under
CC   conditions where the sequence is expressed and pro-inflammatory response
CC   of T cells that respond to the autoantigen is decreased. The construct
CC   can be incorporated in a vaccine also comprising a sequence encoding a
CC   Th2 cytokine under the regulatory control of a promoter that is active in
CC   a mammalian host. The method is useful for treating an autoimmune
CC   disease, preferably a demyelinating disease such as experimental
CC   autoimmune encephalitis and multiple sclerosis in a mammal, rheumatoid
CC   arthritis and insulin dependent diabetes mellitus. This sequence
CC   represents a PCR primer used to amplify DNA encoding interleukin-10 (IL-
CC   10), used in the scope of the invention
XX
SQ   Sequence 20 BP; 4 A; 5 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       136 CTGGCGACTGTTTTGGGGGA 155
             ||||| || |||||  ||||
Db         1 CTGGCCACAGTTTTCAGGGA 20


RESULT 5072
ABQ74646
ID   ABQ74646 standard; DNA; 20 BP.
XX
AC   ABQ74646;
XX
DT   24-OCT-2002  (first entry)
XX
DE   Ki67 gene antisense PCR primer SEQ ID NO:78.
XX
KW   Human; PCR primer; identification; tumour senescence; cytotoxic; ss;
KW   abnormal cell proliferation; neoplastic cell growth; growth-inhibitory.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200261134-A2.
XX
PD   08-AUG-2002.
XX
PF   21-DEC-2001; 2001WO-US050574.
XX
PR   21-DEC-2000; 2000US-0257907P.
PR   17-DEC-2001; 2001US-00257907.
XX
PA   (UNII ) UNIV ILLINOIS FOUND.
XX
PI   Roninson IB,  Chang B;
XX
DR   WPI; 2002-619266/66.
XX
PT   Identifying a compound that induces senescence in a mammalian p53
PT   deficient or tumor cell comprises assaying expression of cellular genes
PT   in the presence of the compound with expression of the genes in the
PT   absence of the compound.
XX
PS   Example 4; Page 50; 73pp; English.
XX
CC   The present invention describes a method for identifying a compound that
CC   induces senescence in a mammalian cell comprising culturing the cell in
CC   the presence and absence of the compound, assaying expression of at least
CC   one cellular gene (G1a) from 56 or a gene (G2) from 64 genes, with
CC   corresponding accession numbers given in the specification, and
CC   identifying compounds that induce senescence when expression of (G1a) or
CC   expression of (G2) is lower, in the presence of the compound. Also
CC   described: (1) a compound that induces senescence in a mammalian cell;
CC   (2) assessing efficacy of a treatment of a disease or condition relating
CC   to abnormal cell proliferation or neoplastic cell growth; (3) treating a
CC   disease or condition relating to abnormal cell proliferation or
CC   neoplastic cell growth; or (4) identifying a compound that inhibits
CC   senescence-associated induction of cellular gene expression. The compound
CC   is useful for treating or for assessing efficacy of treatment of a
CC   disease or condition relating to abnormal cell proliferation or
CC   neoplastic cell growth. The compound of the invention has a growth-
CC   inhibitory effect without producing systemic side effects found with
CC   other growth-inhibitory compounds. ABQ74611 to ABQ74734 represent PCR
CC   primers which are used in an example from the present invention
XX
SQ   Sequence 20 BP; 8 A; 5 C; 5 G; 2 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1488 CCCTGGAGAAAATGGAGAAA 1507
              |||||||||| || |  |||
Db          1 CCCTGGAGAACATAGGCAAA 20


RESULT 5073
ABL94461/c
ID   ABL94461 standard; DNA; 20 BP.
XX
AC   ABL94461;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Mouse C/EBP beta phosphorothioate antisense oligonucleotide, SEQ ID:228.
XX
KW   Mouse; murine; C/EBP beta; CCAAT/enhancer-binding protein beta; C/EPB2;
KW   LAP; TCF5; CRP2; NFIL6; IL6DBP; NF-M; AGP/EBP; Apc/EBP;
KW   transcription factor; tissue development; cellular function;
KW   proliferation; differentiation; hormone responsiveness;
KW   oxidative stress response; IL-6 signalling mediator; interleukin-6;
KW   carbohydrate metabolism; immunity; Th1 response; female fertility;
KW   gluconeogenesis; ovarian; cancer; tumour formation; type II; diabetes;
KW   infection; inflammation; expression inhibition; phosphorothioate;
KW   antisense oligonucleotide; ss.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6271030-B1.
XX
PD   07-AUG-2001.
XX
PF   14-JUN-2000; 2000US-00593711.
XX
PR   14-JUN-2000; 2000US-00593711.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-214451/27.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human or
PT   mouse CCAAT/enhancer binding protein (C/EBP) beta, useful in vitro for
PT   inhibiting expression of human or mouse C/EBP beta in cells/tissues.
XX
PS   Example 17; Col 53-54; 69pp; English.
XX
CC   Sequences ABL94252-ABL94476 represent antisense oligonucleotides targeted
CC   to the human or mouse CCAAT/enhancer-binding protein alpha (C/EBP alpha)
CC   gene, which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human and/or mouse C/EBP
CC   alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels
CC   by quantitative real-time PCR. The C/EBP family of proteins are a family
CC   of transcription factors which regulate the expression of a wide range of
CC   genes that control normal tissue development, cellular function, cellular
CC   proliferation and functional differentiation. C/EBP beta (also known as
CC   C/EPB2, LAP, TCF5, CRP2, NFIL6, IL6DBP, NF-M, AGP/EBP and Apc/EBP)
CC   primarily regulates hormone responsiveness and oxidative stress responses
CC   and is a mediator of IL-6 (interleukin-6) signalling. C/EBP beta is
CC   thought to be involved in carbohydrate metabolism, immunity, the Th1
CC   response, female fertility and gluconeogenic pathways. C/EBP beta is
CC   expressed in the liver, lung, spleen, kidney, brain, and testis, with the
CC   highest expression found in the lung. It is also expressed at a higher
CC   level in malignant ovarian tissue compared with normal ovarian tissue,
CC   and its expression in pancreas is upregulated in response to chronically
CC   elevated levels of glucose, indicating that it is involved in the
CC   impairment of insulin secretion in type II diabetes. The oligonucleotides
CC   of the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with C/EBP beta expression, such as cancer
CC   (particularly ovarian cancer), tumour formation, diabetes (particularly
CC   type II diabetes), infection, or inflammation
XX
SQ   Sequence 20 BP; 16 A; 4 C; 0 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              |||||  |||| ||||| ||
Db         20 TTTTTGGTTTTGTTTTTGTT 1


RESULT 5074
ABL94394
ID   ABL94394 standard; DNA; 20 BP.
XX
AC   ABL94394;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Mouse C/EBP beta phosphorothioate antisense oligonucleotide, SEQ ID:160.
XX
KW   Mouse; murine; C/EBP beta; CCAAT/enhancer-binding protein beta; C/EPB2;
KW   LAP; TCF5; CRP2; NFIL6; IL6DBP; NF-M; AGP/EBP; Apc/EBP;
KW   transcription factor; tissue development; cellular function;
KW   proliferation; differentiation; hormone responsiveness;
KW   oxidative stress response; IL-6 signalling mediator; interleukin-6;
KW   carbohydrate metabolism; immunity; Th1 response; female fertility;
KW   gluconeogenesis; ovarian; cancer; tumour formation; type II; diabetes;
KW   infection; inflammation; expression inhibition; phosphorothioate;
KW   antisense oligonucleotide; ss.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6271030-B1.
XX
PD   07-AUG-2001.
XX
PF   14-JUN-2000; 2000US-00593711.
```

```
XX
PR   14-JUN-2000; 2000US-00593711.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-214451/27.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human or
PT   mouse CCAAT/enhancer binding protein (C/EBP) beta, useful in vitro for
PT   inhibiting expression of human or mouse C/EBP beta in cells/tissues.
XX
PS   Example 17; Col 49-50; 69pp; English.
XX
CC   Sequences ABL94252-ABL94476 represent antisense oligonucleotides targeted
CC   to the human or mouse CCAAT/enhancer-binding protein alpha (C/EBP alpha)
CC   gene, which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human and/or mouse C/EBP
CC   alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels
CC   by quantitative real-time PCR. The C/EBP family of proteins are a family
CC   of transcription factors which regulate the expression of a wide range of
CC   genes that control normal tissue development, cellular function, cellular
CC   proliferation and functional differentiation. C/EBP beta (also known as
CC   C/EPB2, LAP, TCF5, CRP2, NFIL6, IL6DBP, NF-M, AGP/EBP and Apc/EBP)
CC   primarily regulates hormone responsiveness and oxidative stress responses
CC   and is a mediator of IL-6 (interleukin-6) signalling. C/EBP beta is
CC   thought to be involved in carbohydrate metabolism, immunity, the Th1
CC   response, female fertility and gluconeogenic pathways. C/EBP beta is
CC   expressed in the liver, lung, spleen, kidney, brain, and testis, with the
CC   highest expression found in the lung. It is also expressed at a higher
CC   level in malignant ovarian tissue compared with normal ovarian tissue,
CC   and its expression in pancreas is upregulated in response to chronically
CC   elevated levels of glucose, indicating that it is involved in the
CC   impairment of insulin secretion in type II diabetes. The oligonucleotides
CC   of the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with C/EBP beta expression, such as cancer
CC   (particularly ovarian cancer), tumour formation, diabetes (particularly
CC   type II diabetes), infection, or inflammation
XX
SQ   Sequence 20 BP; 0 A; 8 C; 12 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        562 GGCGGGCGCGGTGAGCGCCC 581
              ||||||||||   ||| ||
Db          1 GGCGGGCGCGGCCGGCGGCC 20


RESULT 5075
ABL94252/c
ID   ABL94252 standard; DNA; 20 BP.
XX
AC   ABL94252;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Human C/EBP beta phosphorothioate antisense oligonucleotide, SEQ ID:18.
XX
KW   Human; C/EBP beta; CCAAT/enhancer-binding protein beta; C/EPB2; LAP;
KW   TCF5; CRP2; NFIL6; IL6DBP; NF-M; AGP/EBP; Apc/EBP; transcription factor;
KW   tissue development; cellular function; proliferation; differentiation;
KW   hormone responsiveness; oxidative stress response;
KW   IL-6 signalling mediator; interleukin-6; carbohydrate metabolism;
KW   immunity; Th1 response; female fertility; gluconeogenesis; ovarian;
KW   cancer; tumour formation; type II; diabetes; infection; inflammation;
KW   expression inhibition; phosphorothioate; antisense oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6271030-B1.
XX
PD   07-AUG-2001.
XX
PF   14-JUN-2000; 2000US-00593711.
XX
PR   14-JUN-2000; 2000US-00593711.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-214451/27.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human or
PT   mouse CCAAT/enhancer binding protein (C/EBP) beta, useful in vitro for
PT   inhibiting expression of human or mouse C/EBP beta in cells/tissues.
XX
PS   Claim 1; Col 42; 69pp; English.
XX
CC   Sequences ABL94252-ABL94476 represent antisense oligonucleotides targeted
CC   to the human or mouse CCAAT/enhancer-binding protein alpha (C/EBP alpha)
CC   gene, which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human and/or mouse C/EBP
CC   alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels
CC   by quantitative real-time PCR. The C/EBP family of proteins are a family
CC   of transcription factors which regulate the expression of a wide range of
CC   genes that control normal tissue development, cellular function, cellular
CC   proliferation and functional differentiation. C/EBP beta (also known as
CC   C/EPB2, LAP, TCF5, CRP2, NFIL6, IL6DBP, NF-M, AGP/EBP and Apc/EBP)
CC   primarily regulates hormone responsiveness and oxidative stress responses
CC   and is a mediator of IL-6 (interleukin-6) signalling. C/EBP beta is
CC   thought to be involved in carbohydrate metabolism, immunity, the Th1
CC   response, female fertility and gluconeogenic pathways. C/EBP beta is
CC   expressed in the liver, lung, spleen, kidney, brain, and testis, with the
CC   highest expression found in the lung. It is also expressed at a higher
CC   level in malignant ovarian tissue compared with normal ovarian tissue,
CC   and its expression in pancreas is upregulated in response to chronically
CC   elevated levels of glucose, indicating that it is involved in the
CC   impairment of insulin secretion in type II diabetes. The oligonucleotides
CC   of the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with C/EBP beta expression, such as cancer
CC   (particularly ovarian cancer), tumour formation, diabetes (particularly
CC   type II diabetes), infection, or inflammation
XX
SQ   Sequence 20 BP; 0 A; 9 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         50 CGCGGCGGGGGCGGCGGCAG 69
              | |||| | |||||| ||||
Db         20 CCCGGCAGCGGCGGCAGCAG 1


RESULT 5076
ABS70610
```

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ID   ABS70610 standard; DNA; 20 BP.
XX
AC   ABS70610;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Dendritic cell stimulating CpG oligodeoxynucleotide #99.
XX
KW   CpG; ss; dendritic cell; dendritic cell activation; cytostatic;
KW   antiallergic; cancer; immunotherapy; infectious disease; allergy.
XX
OS   Synthetic.
XX
PN   US6429199-B1.
XX
PD   06-AUG-2002.
XX
PF   13-NOV-1998;   98US-00191170.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
PR   30-OCT-1996;   96US-00738652.
PR   30-OCT-1997;   97US-00960774.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Hartmann G;
XX
DR   WPI; 2002-689667/74.
XX
PT   Activating a dendritic cell for cancer immunotherapy or for treating
PT   infectious or allergy disease, by contacting a dendritic cell with an
PT   isolated nucleic acid containing at least one unmethylated CpG
PT   dinucleotide.
XX
PS   Example 6; Col 34; 52pp; English.
XX
CC   This invention relates to a novel method for activating or causing
CC   maturation of a dendritic cell. The method comprises contacting a
CC   dendritic cell with an isolated nucleic acid containing at least one
CC   unmethylated CpG dinucleotide in an amount effective to activate or cause
CC   maturation of the dendritic cell, where the activation is performed ex
CC   vivo. The method of the invention may have cytostatic or antiallergic
CC   activities. The method of the invention is useful for cancer
CC   immunotherapy or for treating an infectious disease or allergy, by
CC   administering an activated dendritic cell that express a specific cancer,
CC   microbial or allergy causing antigen, to a subject having a cancer
CC   including the cancer antigen, to a subject having an infection with a
CC   microorganism including the microbial antigen or to a subject having an
CC   allergic reaction to the allergy causing antigen, where the activated
CC   dendritic cell is prepared using the method of the invention. The method
CC   is useful for generating a high yield of dendritic cells by administering
CC   an isolated nucleic acid containing at least one unmethylated CpG
CC   dinucleotide, where the nucleic acid is 8-80 bases in length in an amount
CC   effective to activate the dendritic cells to a subject, and isolating
CC   dendritic cells from the subject. The use of CpG allows the generation of
CC   mature dendritic cells from peripheral blood within two days in a well
CC   defined system. The application of CpG for this purpose is superior to
CC   granulocyte macrophage-colony stimulating factor (GM-CSF), which is
CC   currently used for this purpose. CpG oligonucleotides have a longer half
CC   life, are less expensive, and show a greater magnitude of immune effects.
CC   The present sequence represents a CpG oligonucleotide used in the method
CC   of the invention
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20
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RESULT 5077
ABI94166/c
ID   ABI94166 standard; DNA; 20 BP.
XX
AC   ABI94166;
XX
DT   16-FEB-2002  (first entry)
XX
DE   Capture oligonucleptide Zip ID#1253 oligo #9.
XX
KW   Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW   ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW   infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW   oncogene; tumour suppressor; human papillomavirus; forensic;
KW   environmental monitoring; food industry; feed industry; ss.
XX
OS   Synthetic.
XX
PN   WO200179548-A2.
XX
PD   25-OCT-2001.
XX
PF   04-APR-2001; 2001WO-US010958.
XX
PR   14-APR-2000; 2000US-0197271P.
XX
PA   (CORR ) CORNELL RES FOUND INC.
XX
PI   Barany F,  Zirvi M,  Gerry NP,  Favis R,  Kliman R;
XX
DR   WPI; 2002-034366/04.
XX
PT   Designing capture oligonucleotide probes for use on a support to which
PT   complementary oligonucleotides hybridize with little mismatch.
XX
PS   Example 5; Fig 29; 300pp; English.
XX
CC   The present invention describes a method (M1) for designing capture
CC   oligonucleotide probes (I) for use on a support to which complementary
CC   oligonucleotide probes (II) will hybridise with little mismatch, where
CC   (I) have melting temperatures within a narrow range. The method is useful
CC   for detecting infectious diseases caused by bacterial infectious agents
CC   e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC   infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC   Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC   Epstein-Barr virus and polio virus, and parasitic infectious agents
CC   selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC   medinesis. The method is also useful for detecting genetic diseases such
CC   as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC   Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC   involved in DNA amplification, replication, recombination or repair, the
CC   cancer is specifically associated with a gene selected from BRCA1 gene,
CC   p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC   method is also used for environmental monitoring, forensics and the food
CC   and feed industry, detecting comprises scanning (using e.g. a scanning
CC   electron microscope and infrared microscope) the support at the
CC   particular sites and identifying if ligation of the oligonucleotide probe
CC   sets occurred and correlating (using a computer) identified ligation to a
CC   presence or absence of the target nucleotide sequences. ABI82074 to
CC   ABI97546 represent oligonucleotide sequences used in the exemplification
CC   of the present invention
XX
SQ   Sequence 20 BP; 5 A; 7 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1593 GGGAACCCCTCCTGGCCTGG 1612
              |||||| | |||| || |||
Db         20 GGGAACTCGTCCTTGCATGG 1
```

```
RESULT 5078
ABI94468
ID   ABI94468 standard; DNA; 20 BP.
XX
AC   ABI94468;
XX
DT   16-FEB-2002  (first entry)
XX
DE   Capture oligonucleptide Zip ID#1555 oligo #9.
XX
KW   Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW   ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW   infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW   oncogene; tumour suppressor; human papillomavirus; forensic;
KW   environmental monitoring; food industry; feed industry; ss.
XX
OS   Synthetic.
XX
PN   WO200179548-A2.
XX
PD   25-OCT-2001.
XX
PF   04-APR-2001; 2001WO-US010958.
XX
PR   14-APR-2000; 2000US-0197271P.
XX
PA   (CORR ) CORNELL RES FOUND INC.
XX
PI   Barany F,  Zirvi M,  Gerry NP,  Favis R,  Kliman R;
XX
DR   WPI; 2002-034366/04.
XX
PT   Designing capture oligonucleotide probes for use on a support to which
PT   complementary oligonucleotides hybridize with little mismatch.
XX
PS   Example 5; Fig 29; 300pp; English.
XX
CC   The present invention describes a method (M1) for designing capture
CC   oligonucleotide probes (I) for use on a support to which complementary
CC   oligonucleotide probes (II) will hybridise with little mismatch, where
CC   (I) have melting temperatures within a narrow range. The method is useful
CC   for detecting infectious diseases caused by bacterial infectious agents
CC   e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC   infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC   Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC   Epstein-Barr virus and polio virus, and parasitic infectious agents
CC   selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC   medinesis. The method is also useful for detecting genetic diseases such
CC   as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC   Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC   involved in DNA amplification, replication, recombination or repair, the
CC   cancer is specifically associated with a gene selected from BRCA1 gene,
CC   p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC   method is also used for environmental monitoring, forensics and the food
CC   and feed industry, detecting comprises scanning (using e.g. a scanning
CC   electron microscope and infrared microscope) the support at the
CC   particular sites and identifying if ligation of the oligonucleotide probe
CC   sets occurred and correlating (using a computer) identified ligation to a
CC   presence or absence of the target nucleotide sequences. ABI82074 to
CC   ABI97546 represent oligonucleotide sequences used in the exemplification
CC   of the present invention
XX
SQ   Sequence 20 BP; 2 A; 7 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1358 CACGGGTTTGGCAGCCAGGC 1377
              ||||| |||| ||||| ||
Db          1 CACGGCTTTGTCAGCCGTGC 20
```

```
RESULT 5079
ABL54171
ID   ABL54171 standard; DNA; 20 BP.
XX
AC   ABL54171;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Oligonucleotide.
XX
KW   B cell lymphoma/leukaemia-2; bcl-2; oncogene; antisense; lymphoma;
KW   leukaemia; colon carcinoma; rectal carcinoma; pancreatic cancer;
KW   breast cancer; ovarian cancer; prostate cancer; renal cell carcinoma;
KW   hepatoma; bile duct carcinoma; choriocarcinoma; cervical cancer;
KW   testicular cancer; lung carcinoma; bladder carcinoma; melanoma;
KW   head and neck cancer; brain cancer; cytostatic; human; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   WO200217852-A2.
XX
PD   07-MAR-2002.
XX
PF   23-AUG-2001; 2001WO-US026414.
XX
PR   25-AUG-2000; 2000US-0227970P.
PR   29-SEP-2000; 2000US-0237009P.
PR   10-NOV-2000; 2000US-00709170.
XX
PA   (GENT-) GENTA INC.
XX
PI   Warrel RP,  Klem RE,  Fingert H;
XX
DR   WPI; 2002-371796/40.
XX
PT   Treating or preventing cancer, tumors and carcinomas, comprises
PT   administering B cell lymphoma/leukemia-2 antisense oligonucleotide at
PT   high doses for short period for time with one or more cancer
PT   therapeutics.
XX
PS   Disclosure; Page 63; 64pp; English.
XX
CC   The present invention is related to the use of a B cell
CC   lymphoma/leukaemia-2 (bcl-2) antisense oligonucleotide, particularly
CC   G3139 (see ABL54148), to treat and prevent bcl-2 related disorders.
CC   Administration at high doses results in significant therapeutic
CC   responses, including low toxicity, high tolerance and prolonged survival.
CC   Administration at high doses for short periods of time (less than 14
CC   days) also provides significant therapeutic responses in the treatment of
CC   cancer. The bcl-2 antisense oligomer may also be used to increase the
CC   sensitivity of a subject to cancer therapeutics, and in combination with
CC   hormone treatment or gene therapy. Conditions that may be treated or
CC   prevented include cancer of the haematopoietic system, skin, bone and
CC   soft tissue, reproductive system, genitourinary system, breast, endocrine
CC   system, brain, central nervous system, peripheral nervous system, kidney,
CC   lung, respiratory system, thorax, gastrointestinal and alimentary canal,
CC   lymph nodes, pancreas, hepatobiliary system, or cancer of unknown primary
CC   site, non-Hodgkin's lymphoma, Hodgkin's lymphoma, leukaemia, colon
CC   carcinoma, rectal carcinoma, pancreatic, breast, ovarian, prostate,
CC   cervical, testicular, head and neck or brain cancer, renal cell
CC   carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, lung
CC   carcinoma, bladder carcinoma and melanoma (all claimed). Note: The
CC   present sequence is given in the Sequence Listing from the present
CC   invention but the Seq ID No. is not referred to within the specification
XX
SQ   Sequence 20 BP; 1 A; 6 C; 13 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy          49 GCGCGGCGGGGGCGGCGGCA 68
               ||||||||||  |  |  ||||
Db           1 GCGCGGCGGGCGGGCGGGCA 20
```

RESULT 5080
ABZ89486/c
ID ABZ89486 standard; DNA; 20 BP.
XX
AC ABZ89486;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4728; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 15 A; 4 C; 0 G; 1 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

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Qy        2168 TTTTTTTTTTTTTTTTTTTA 2187
               ||||||||||  ||  ||  ||
Db          20 TTTTTTTTTTGGTTGTTGTA 1
```

RESULT 5081
ABZ89718
ID ABZ89718 standard; DNA; 20 BP.
XX
AC ABZ89718;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4960; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 0 C; 2 G; 16 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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```
Qy       2158 TTTTCTCCTTTTTTTTTTTT 2177
              ||||    ||||||||||||
Db          1 TTTTGGAATTTTTTTTTTTT 20
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RESULT 5082
ABZ99083
ID   ABZ99083 standard; DNA; 20 BP.
XX
AC   ABZ99083;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human PDE4C oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 14325; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 0 A; 5 C; 0 G; 15 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||  ||||| ||| |||||
Db          1 TTTCCTTCTCTTTTCTTTTT 20
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RESULT 5083
ABZ91619
ID   ABZ91619 standard; DNA; 20 BP.
XX
AC   ABZ91619;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 6861; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 5 A; 0 C; 1 G; 14 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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```
Qy       2171 TTTTTTTTTTTTTTTAACT 2190
              || ||  |||||||||| |
Db          1 TTATTAGTTTTTTTTAAAT 20
```

RESULT 5084
ABZ91619/c
ID ABZ91619 standard; DNA; 20 BP.
XX
AC ABZ91619;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6861; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 0 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 90.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2782 ATTGAAAAAAAAAAAAAAAA 2801
              |||  |||||||||  || ||
Db         20 ATTTAAAAAAAAACTAATAA 1
```

RESULT 5085
ABZ92183/c
ID ABZ92183 standard; DNA; 20 BP.
XX
AC ABZ92183;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 7425; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 14 A; 0 C; 5 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2154 ATTTTTTTCTCCTTTTTTT 2173
              ||||||||||| |||   |||
Db         20 ATTTTTTTCTTCTTCCCTTT 1
```

RESULT 5086
ABZ86522/c
ID ABZ86522 standard; DNA; 20 BP.
XX
AC ABZ86522;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 1764; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 15 A; 1 C; 3 G; 1 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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```
Qy       2173 TTTTTTTTTTTTTTAACTTT 2192
              ||||| ||| ||| | ||||
Db         20 TTTTTCTTTGTTTCATCTTT 1
```

RESULT 5087
ABZ88944
ID ABZ88944 standard; DNA; 20 BP.
XX
AC ABZ88944;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4186; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy        721 GTTGCTGCACGATCAGACAG 740
              | |||||  |||| ||||||
Db          1 GATGCTGTGCGATTAGACAG 20
```

RESULT 5088
ABZ89490/c
ID ABZ89490 standard; DNA; 20 BP.
XX
AC ABZ89490;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4732; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 15 A; 1 C; 1 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2157 TTTTTCTCCTTTTTTTTTTT 2176
              |||  ||  ||||||||||||
Db         20 TTTAACTGATTTTTTTTTTT 1
```

RESULT 5089
ABZ89503
ID ABZ89503 standard; DNA; 20 BP.
XX
AC ABZ89503;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4745; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 11 A; 1 C; 3 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2774 TTGTTAGAATTGAAAAAAAA 2793
              ||||    ||||||||||||
Db          1 TTGTACAGATTGAAAAAAAA 20
```

RESULT 5090
ABZ90826/c
ID ABZ90826 standard; DNA; 20 BP.
XX
AC ABZ90826;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6068; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 6 A; 2 C; 9 G; 3 T; 0 U; 0 Other;

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  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy        344 TTTCCCCCTCCCTACCAGCA 363
              | | ||||||| | ||||||
Db         20 TATTCCCCTCCTTGCCAGCA 1
```

RESULT 5091
ABZ98749
ID ABZ98749 standard; DNA; 20 BP.
XX
AC ABZ98749;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human tryptase a oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13991; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

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Qy       2440 ACGACTTTTTTGAGACATGG 2459
              ||| |||||| | ||||| |
Db          1 ACGGCTTTTTGGGGACATAG 20
```

RESULT 5092
ABZ98961
ID ABZ98961 standard; DNA; 20 BP.
XX
AC ABZ98961;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human PDE4A oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 14203; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 5 C; 8 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        203 GAGGACTGCGAGGATCGCCA 222
              |||| | ||||| ||| |||
Db          1 GAGGGCGGCGAGAATCTCCA 20
```

RESULT 5093
ABZ88835
ID ABZ88835 standard; DNA; 20 BP.
XX
AC ABZ88835;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4077; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2158 TTTTCTCCTTTTTTTTTTT 2177
              || | ||||||||| || ||
Db          1 TTATTTCCTTTTTTATTGTT 20
```

RESULT 5094
ABZ90740
ID ABZ90740 standard; DNA; 20 BP.
XX
AC ABZ90740;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5982; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 8 A; 2 C; 3 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2527 ATATATATACAGGGTATTAA 2546
              || |||| || | |||||||
Db          1 ATGTATACACTGAGTATTAA 20
```

RESULT 5095
ABZ99023/c
ID ABZ99023 standard; DNA; 20 BP.
XX
AC ABZ99023;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human PDE4A oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 14265; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 4 A; 11 C; 4 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        106 GCTTGGGGGCTGGGGGGATC 125
              ||| | ||||||| |||| |
Db         20 GCTGGTGGGCTGGTGGGACC 1
```

RESULT 5096
ABZ90288/c
ID ABZ90288 standard; DNA; 20 BP.
XX
AC ABZ90288;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5530; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 2 C; 2 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2784 TGAAAAAAAAAAAAAAAAAA 2803
              |||||||||||| ||    ||
Db         20 TGAAAAAAAAAAGAACCTAA 1
```

RESULT 5097
ABZ91627/c
ID ABZ91627 standard; DNA; 20 BP.
XX
AC ABZ91627;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6869; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 10 A; 4 C; 2 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       1793 TTTCCTTCTCTGAAAGTGGT 1812
              ||||||| |  |||| ||||
Db         20 TTTCCTTTTTGGAAAATGGT 1
```

RESULT 5098
ABZ89922/c
ID ABZ89922 standard; DNA; 20 BP.
XX
AC ABZ89922;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5164; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 7 A; 4 C; 4 G; 5 T; 0 U; 0 Other;

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  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2509 CATCATAAGGTTTTATTCAT 2528
              || ||||  | ||||||||||
Db         20 CAGCATAGCGGTTTATTCAT 1
```

RESULT 5099
ABZ97376/c
ID ABZ97376 standard; DNA; 20 BP.
XX
AC ABZ97376;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human IL4-R oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 12618; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 1 A; 7 C; 3 G; 9 T; 0 U; 0 Other;

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  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       1501 GGAGAAACACAGGAAATAAA 1520
              |||| |||| |||| || ||
Db         20 GGAGCAACAGAGGACATGAA 1
```

RESULT 5100
ABZ89225/c
ID ABZ89225 standard; DNA; 20 BP.
XX
AC ABZ89225;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4467; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 9 A; 1 C; 1 G; 9 T; 0 U; 0 Other;

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  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2464 CAATTTTAATATTAACTTTT 2483
              |||| |||| | ||| ||||
Db         20 CAATGTTAAAAATAATTTTT 1
```

RESULT 5101
ABZ90987
ID ABZ90987 standard; DNA; 20 BP.
XX
AC ABZ90987;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6229; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 4 A; 2 C; 11 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

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Qy       1605 TGGCCTGGGGGAAGAGTTTG 1624
              ||||| |||||||| |  ||
Db          1 TGGCCAGGGGGAAGTGGATG 20
```

RESULT 5102
ABZ95794/c
ID ABZ95794 standard; DNA; 20 BP.
XX
AC ABZ95794;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human tumour necrosis factor antisense fragment no.1658.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 11036; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 0 A; 9 C; 6 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy        478 CGGCCGCCAGAGCCAGGAGG 497
              ||||| ||||||  | ||||
Db         20 CGGCCCCCAGAGGGAAGAGG 1
```

RESULT 5103
ABZ89376
ID ABZ89376 standard; DNA; 20 BP.
XX
AC ABZ89376;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4618; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy       1057 TCATGTGACTCTCCTGACAT 1076
              ||||||||  ||| || |||
Db          1 TCATGTGAGCCTCGTGTCAT 20
```

RESULT 5104
ABZ92584/c
ID ABZ92584 standard; DNA; 20 BP.
XX
AC ABZ92584;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 7826; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 6 C; 7 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        809 GGGGCCGTAATGAACCCCAC 828
              |||||| | ||| ||| |||
Db         20 GGGGCCCTGATGTACCACAC 1
```

RESULT 5105
ABZ98728/c
ID ABZ98728 standard; DNA; 20 BP.
XX
AC ABZ98728;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human tryptase a oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13970; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 8 C; 7 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        550 CTCCGGGCTGGAGGCGGGCG 569
              | || ||||  |||||||||
Db         20 CACCTGGCTACAGGCGGGCG 1


RESULT 5106
ABZ98829/c
ID   ABZ98829 standard; DNA; 20 BP.
XX
AC   ABZ98829;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human tryptase b oligonucleotdie sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 14071; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 2 A; 8 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy        550 CTCCGGGCTGGAGGCGGGCG 569
              | || ||||  |||||||||
Db         20 CACCTGGCTACAGGCGGGCG 1


RESULT 5107
ABZ87741/c
ID   ABZ87741 standard; DNA; 20 BP.
XX
AC   ABZ87741;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 2983; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 12 A; 3 C; 5 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2152 TGATTTTTTTCTCCTTTTTT 2171
              ||  ||||||| ||||||  |
Db         20 TGGGTTTTTTCCCCTTTTCT 1
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RESULT 5108
ABZ90974/c
ID ABZ90974 standard; DNA; 20 BP.
XX
AC ABZ90974;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6216; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 7 A; 3 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       1909 GATCAACAATACCTTTTTTT 1928
              ||||| |||| |||  ||||
Db         20 GATCACCAATGCCTGCTTTT 1
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RESULT 5109
ABZ91436/c
ID ABZ91436 standard; DNA; 20 BP.
XX
AC ABZ91436;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 6678; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 0 A; 5 C; 11 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          35 ACAGCAAGGCCCGCGCGCGG 54
               || ||||| ||||| | |||
Db          20 ACCGCAAGCCCCGCCCACGG 1
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RESULT 5110
ABZ88937
ID ABZ88937 standard; DNA; 20 BP.
XX
AC ABZ88937;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4179; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 13 A; 3 C; 2 G; 2 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy        2779 AGAATTGAAAAAAAAAAAAA 2798
               || | ||  ||||||||||||
Db           1 AGCACTGTCAAAAAAAAAAA 20
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RESULT 5111
ABZ98627
ID ABZ98627 standard; DNA; 20 BP.
XX
AC ABZ98627;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human tryptase a oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13869; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 8 C; 7 G; 2 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy        568 CGCGGTGAGCGCCCGCAGGG 587
              |||||| ||| ||| | |||
Db          1 CGCGGTCAGCACCCACTGGG 20
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RESULT 5112
ABZ85307
ID ABZ85307 standard; DNA; 20 BP.
XX
AC ABZ85307;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 549; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 1 C; 3 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2173 TTTTTTTTTTTTTTAACTTT 2192
              |||| |||| ||| || |||
Db          1 TTTTGTTTTGTTTCAAGTTT 20
```

RESULT 5113
ABZ85307/c
ID ABZ85307 standard; DNA; 20 BP.
XX
AC ABZ85307;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 549; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 1 C; 3 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       2779 AGAATTGAAAAAAAAAAAAA 2798
              | | |||||| |||| ||||
Db         20 AAACTTGAAACAAAACAAAA 1
```

RESULT 5114
ABZ93877/c
ID ABZ93877 standard; DNA; 20 BP.
XX
AC ABZ93877;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 9119; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 1 A; 3 C; 11 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        354 CCTACCAGCAGCTGGCCTAC 373
              || ||||||| |||||  ||
Db         20 CCCACCAGCACCTGGCACAC 1
```

RESULT 5115
ABZ99269/c
ID ABZ99269 standard; DNA; 20 BP.
XX
AC ABZ99269;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human PDE4C oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 14511; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 7 C; 8 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy        636 ATGCCGCGGGCCTGGCCGAG 655
              ||||||| | | ||||| ||
Db         20 ATGCCGCCGACGTGGCCCAG 1
```

RESULT 5116
ABZ88750
ID ABZ88750 standard; DNA; 20 BP.
XX
AC ABZ88750;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 3992; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 2 C; 3 G; 10 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2252 AGCTTTATTTGCATATTTAT 2271
              |||| ||||| || |||| |
Db          1 AGCTGTATTTTCAAATTTGT 20
```

RESULT 5117
ABZ92509
ID ABZ92509 standard; DNA; 20 BP.
XX
AC ABZ92509;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 7751; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 12 A; 1 C; 1 G; 6 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2752 TACGTGTATAATAAAAGTAT 2771
              ||| || |||| |||| |||
Db          1 TACTTGAATAAAAAAAATAT 20
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RESULT 5118
ABZ92815/c
ID ABZ92815 standard; DNA; 20 BP.
XX
AC ABZ92815;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 8057; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 1 A; 6 C; 3 G; 10 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy       1310 TTGGAGACGAACATACAGAA 1329
              | |||| |||||| | ||||
Db         20 TAGGAGCCGAACAGAAAGAA 1
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RESULT 5119
ABZ98578
ID ABZ98578 standard; DNA; 20 BP.
XX
AC ABZ98578;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human ICAM oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13820; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 1 A; 6 C; 13 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          42 GGCCCGCGCGCGGCGGGGGC 61
               || | |||||| | |||||||
Db           1 GGGCAGCGCGGGCCGGGGGC 20
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RESULT 5120
ABZ98645/c
ID ABZ98645 standard; DNA; 20 BP.
XX
AC ABZ98645;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human tryptase a oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 13887; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 5 C; 7 G; 5 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy         708 ACGACCAGCACCTGTTGCTG 727
               || ||||| ||| | |||||
Db          20 ACTACCAGGACCAGCTGCTG 1
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RESULT 5121
ABZ87698/c
ID ABZ87698 standard; DNA; 20 BP.
XX
AC ABZ87698;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 2940; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 16 A; 4 C; 0 G; 0 T; 0 U; 0 Other;

```
  Query Match              0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       2166 TTTTTTTTTTTTTTTTTTT 2185
              | ||||  |||| |||||||
Db         20 TGTTTTGGTTTTGTTTTTTT 1
```

RESULT 5122
ABZ88388/c
ID ABZ88388 standard; DNA; 20 BP.
XX
AC ABZ88388;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 3630; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy       2287 TAAACTTGAAAAGGGTAGGC 2306
              | |||||| |||| |||| |
Db         20 TGAACTTGGAAAGTGTAGCC 1
```

RESULT 5123
ABZ80359/c
ID ABZ80359 standard; DNA; 20 BP.
XX
AC ABZ80359;
XX
DT 28-MAY-2003 (first entry)
XX
DE CD45 antisense PCR primer SEQ ID NO:82.
XX
KW Purification; neural stem cell; NSC; undifferentiated; nootropic;
KW neuroprotective; antiparkinsonian; gene therapy; nervous system;
KW central nervous system; CNS; Alzheimer's disease; Parkinson's disease;
KW acute brain injury; CNS dysfunction; tissue regeneration; tissue repair;
KW PCR primer; ss.
XX
OS Synthetic.
XX
PN WO200297067-A1.
XX
PD 05-DEC-2002.
XX
PF 31-MAY-2002; 2002WO-AU000700.
XX
PR 01-JUN-2001; 2001AU-00005403.
XX
PA (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
XX
PI Bartlett PF, Rietze RL;
XX
DR WPI; 2003-140465/13.
XX
PT Generating substantially homogeneous population of undifferentiated cells
PT from sample, by disrupting tissue sample, discriminating cells in
PT population based on size and performing cell-surface marker-
PT discrimination.
XX
PS Example 10; Page 49; 90pp; English.
XX
CC The present invention describes a method (M) for generating a
CC substantially homogeneous population of undifferentiated cells (UC) from
CC a biological sample (BS), which comprises subjecting BS or its sub-sample
CC to tissue-disruption to provide a mixed population (MP) comprising UC,
CC subjecting MP to a cell size-discrimination (SD) step, and simultaneously
CC or sequentially with SD, subjecting the cell population obtained to a
CC cell-surface marker-discrimination step. Also described: (1) a
CC substantially homogeneous population of undifferentiated cells (I)
CC prepared by (M); (2) a composition (II) for use in cell replacement
CC therapy, comprising a population of substantially homogeneous population
CC of neural stem cells (NSCs) generated by (M); and (3) a composition (III)
CC comprising a growth factor identified using a homogeneous population of
CC NSCs generated by (M). (I) can have nootropic, neuroprotective and
CC antiparkinsonian activities, and can be used in gene therapy. (M) is
CC useful for generating a substantially homogeneous population of
CC undifferentiated cells such as NSCs from a biological sample, and is
CC useful for the replacement of neural or non-neural tissue in an animal.
CC (II) is useful in cell replacement therapy in an organ such as the brain
CC or in the nervous system, preferably central nervous system (CNS), for
CC treating a CNS disorder such as Alzheimer's disease, Parkinson's disease,
CC acute brain injury and CNS dysfunction. (I) is useful for the repair or
CC regeneration of tissue. ABZ80278 to ABZ80363 represent PCR primers which
CC are used in an example from the present invention for markers defining
CC cell populations
XX
SQ Sequence 20 BP; 6 A; 5 C; 4 G; 5 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
```

```
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        164 GCCATGTTGTGGAAAATAAC 183
              ||||||||  |||| || ||
Db         20 GCCATGTTTGGGAACATTAC 1


RESULT 5124
ABQ84589
ID   ABQ84589 standard; DNA; 20 BP.
XX
AC   ABQ84589;
XX
DT   20-FEB-2003  (first entry)
XX
DE   DPP10 related PSQ assay oligonucleotide #74.
XX
KW   DPP10; dipeptidyl peptidase; prolyloligopeptidase; enzyme; asthma;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antiarthritic;
KW   antirheumatic; vaccine; gene therapy; inflammatory disease;
KW   inflammatory bowel disease; atopy; rheumatoid arthritis; psoriasis;
KW   chromosome 2q14; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200286113-A2.
XX
PD   31-OCT-2002.
XX
PF   24-APR-2002; 2002WO-GB001887.
XX
PR   24-APR-2001; 2001GB-00010044.
PR   24-APR-2001; 2001GB-00010046.
PR   12-OCT-2001; 2001GB-00024575.
PR   12-OCT-2001; 2001GB-00024594.
XX
PA   (ISIS-) ISIS INNOVATIONS LTD.
XX
PI   Cookson WOCM,  Moffat MF,  Allen M,  Lench N;
XX
DR   WPI; 2003-093132/08.
XX
PT   New nucleic acid sequence comprising DPP10 mRNA, useful for the
PT   manufacture of a medicament for regulating DPP10 protein expression or
PT   for preventing or treating inflammatory disease e.g., inflammatory bowel
PT   disease.
XX
PS   Disclosure; Page 321; 321pp; English.
XX
CC   The present invention describes a new isolated nucleic acid sequence (I)
CC   comprising a DPP10 mRNA sequence. DPP10 is a dipeptidyl peptidase (also
CC   known as prolyloligopeptidase). (I) has antiinflammatory, antiasthmatic,
CC   antipsoriatic, antiarthritic and antirheumatic activities, and can be
CC   used in vaccines and gene therapy. A composition comprising (I) can be
CC   used for the manufacture of a medicament for regulating DPP10 expression
CC   or for preventing or treating inflammatory disease e.g., inflammatory
CC   bowel disease, asthma, atopy, rheumatoid arthritis or psoriasis. (I) can
CC   also be used in an assay for detecting or measuring DPP10 in a sample. A
CC   host cell comprising (I) can be used for producing recombinant DPP10 gene
CC   products, or in drug screening systems to identify agents for diagnosis
CC   or treatment of individuals having or susceptible to inflammatory
CC   disease. Human DPP10 is located on chromosome 2, more specifically
CC   chromosome 2q14. ABQ84254 to ABQ84612 and ABP55569 to ABP55629 represent
CC   sequences used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 9 A; 2 C; 2 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1630 TACCTTACTATTTAAAGAGC 1649
              ||  ||| ||||||||||| |


Db          1 TAAATTAGTATTTAAAGACC 20


RESULT 5125
AAD50403
ID   AAD50403 standard; DNA; 20 BP.
XX
AC   AAD50403;
XX
DT   24-MAR-2003  (first entry)
XX
DE   Mouse HPRT DNA amplifying primer, mHPRT1.
XX
KW   Willebrand Factor A domain related-protein; von Willebrand Factor A; VA;
KW   extracellular matrix; ECM; molecular marker; cartilage; arthritis; WARP;
KW   gene therapy; mouse; hypoxanthine guanine phosphoribosyltransferase;
KW   HPRT; PCR; primer; ss.
XX
OS   Mus sp.
XX
PN   WO200288184-A1.
XX
PD   07-NOV-2002.
XX
PF   02-MAY-2002; 2002WO-AU000542.
XX
PR   02-MAY-2001; 2001AU-00004701.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Bateman JF,  Fitzgerald DJ;
XX
DR   WPI; 2003-111873/10.
XX
PT   New isolated Willebrand Factor A-Related Protein polypeptide useful for
PT   the manufacture of a medicament in the treatment of a disease condition
PT   of the extracellular matrix, in particular arthritis.
XX
PS   Example 4; Page 45; 103pp; English.
XX
CC   The invention relates to Willebrand Factor A domain related-protein
CC   (WARP) which is a member of von Willebrand Factor A (VA)-domain protein
CC   superfamily of extracellular matrix (ECM) proteins. WARP is used as a
CC   molecular marker, used for detecting a loss of ECM integrity in an animal
CC   subject, monitoring repair, regeneration or other disease processes in an
CC   animal subject and detecting a disease condition or a propensity for the
CC   development of a disease condition in an animal subject. The invention is
CC   useful for the manufacture of a medicament in the treatment of a disease
CC   condition of the ECM. The disease condition involves the cartilage, and
CC   is preferably arthritis. The invention is also used in gene therapy. The
CC   present sequence is a PCR primer used for amplifying mouse hypoxanthine
CC   guanine phosphoribosyltransferase (HPRT) DNA. This sequence is used in
CC   the exemplification of the invention
XX
SQ   Sequence 20 BP; 6 A; 4 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1399 CCTGCAGAACTACATCAAAG 1418
              |||||  |  |||||  ||||
Db          1 CCTGCTGGATTACATTAAAG 20


RESULT 5126
ABZ77107
ID   ABZ77107 standard; DNA; 20 BP.
XX
AC   ABZ77107;
XX
DT   07-MAY-2003  (first entry)
XX
```

```
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:62.
XX
KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
XX
PN   WO2003012031-A2.
XX
PD   13-FEB-2003.
XX
PF   16-JUL-2002; 2002WO-US022676.
XX
PR   30-JUL-2001; 2001US-00918187.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Crooke RM,  Graham MJ;
XX
DR   WPI; 2003-248160/24.
XX
PT   New antisense oligonucleotides targeted to nucleic acids encoding human
PT   stearoyl-CoA desaturase, useful for treating diseases associated with the
PT   desaturase, e.g. atherosclerosis, and in diagnostic and research
PT   applications.
XX
PS   Claim 3; Page 95; 117pp; English.
XX
CC   The present invention describes a compound (I) that is 8-50 nucleobases
CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
CC   desaturase, and which specifically hybridises with and inhibits the
CC   expression of human stearoyl-CoA desaturase, or which specifically
CC   hybridises with at least an 8-nucleobase portion of an active site on a
CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
CC   activities, and can be used in antisense therapy. The antisense compounds
CC   (I) can be used for modulating the expression of human stearoyl-CoA
CC   desaturase and for treating diseases or conditions associated with
CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases. The
CC   antisense compounds (I) can also be used for diagnostics, therapeutics
CC   and prophylaxis, e.g. to prevent or delay infection, inflammation or
CC   tumour formation, as research reagents and kits, and in distinguishing
CC   between functions of various members of a biological pathway. The present
CC   sequence represents a human stearoyl-CoA desaturase inhibiting chimeric
CC   phosphorothioate antisense oligonucleotide, which is given in an example
CC   from the present invention
XX
SQ   Sequence 20 BP; 7 A; 5 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        484 CCAGAGCCAGGAGGGAGCGG 503
              || |||||||||| ||  ||
Db          1 CCCGAGCCAGGAGAGAAAGG 20


RESULT 5127
ADA26838
ID   ADA26838 standard; DNA; 20 BP.
XX
AC   ADA26838;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human ZD52F10 reverse PCR primer #122.
XX
KW   Metastasis; neoplastic growth; detection; prediction;
KW   neoplastic growth marker; drug screening; cancer; tumour;
KW   gastrointestinal; prostate; breast; colorectal; diagnostic imaging;
KW   drug targeting; human; cytostatic; reverse transcription-PCR; RT-PCR;
KW   primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003031930-A2.
XX
PD   17-APR-2003.
XX
PF   02-OCT-2002; 2002WO-US031247.
XX
PR   09-OCT-2001; 2001US-0327332P.
XX
PA   (UYJO ) UNIV JOHNS HOPKINS.
XX
PI   Vogelstein B,  Kinzler KW,  Saha S,  Bardelli A;
XX
DR   WPI; 2003-393457/37.
XX
PT   Identifying regions of neoplastic growth in a human body, useful for
PT   detecting or predicting metastasis, comprises administering to the human
PT   body an antibody or peptide that specifically binds to a protein marker
PT   of neoplastic growth.
XX
PS   Example 2; Page 22; 42pp; English.
XX
CC   The invention relates to methods for identifying regions of neoplastic
CC   growth in a human patient, especially for detecting or predicting
CC   metastasis. The methods involve determining whether a neoplastic growth
CC   marker protein is overexpressed, either by the use of an antibody
CC   specific for the protein, or by the use of PCR or hybridisation to detect
CC   nucleic acids encoding the marker proteins. A set of neoplastic growth
CC   markers are disclosed (SAGE (serial analysis of gene expression) tags for
CC   these are given in ADA26759-ADA26796), with protein tyrosine phosphatase
CC   type IVA member 3 (also known as PRL-3) being a preferred neoplastic
CC   growth marker. The neoplastic growth markers are specifically expressed
CC   at a higher level in metastatic cancers, compared with advanced and early
CC   stage cancers and normal cells from which the cancer is derived.
CC   Overexpression of the neoplastic growth markers is taken as an indication
CC   that the tissue has a propensity to metastasise. The invention also
CC   encompasses methods for treating a patient with an advanced or metastatic
CC   cancer, and for identifying candidate drugs for treating advanced or
CC   metastatic cancers. The methods of the invention are useful for
CC   identifying regions of neoplastic growth, for detecting or predicting
CC   metastasis, or identifying candidate drugs for treating advanced or
CC   metastatic cancers. The invention is particularly applicable to
CC   gastrointestinal, prostate, breast or colorectal cancers. Antibodies
CC   which bind to the neoplastic growth marker proteins are additionally
CC   useful for diagnostic imaging and for targeting cytotoxic or
CC   chemotherapeutic drugs. The present sequence represents a reverse
CC   transcription-PCR (RT-PCR) primer used to study the upregulation of
CC   neoplastic growth marker genes in an example of the invention.
XX
SQ   Sequence 20 BP; 8 A; 4 C; 7 G; 1 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        680 CACCAGATGGACGAGGTGCA 699
              ||||| | ||| ||||| ||
Db          1 CACCAAAGGGAGGAGGTACA 20


RESULT 5128
ACC68889
ID   ACC68889 standard; DNA; 20 BP.
XX
AC   ACC68889;
XX
DT   02-JUL-2003  (first entry)
XX
DE   Human TGR23 phosphorothioate oligonucleotide SEQ ID NO:123.
XX
KW   G protein-coupled receptor; GPCR; TGR23-2; TGR23-1; TGR23; anorectic;
KW   cytostatic; obesity disorder; cancer; appetite stimulation;
KW   phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO2003025179-A1.
XX
PD   27-MAR-2003.
XX
PF   13-SEP-2002; 2002WO-JP009446.
XX
PR   14-SEP-2001; 2001JP-00279232.
PR   12-OCT-2001; 2001JP-00315148.
PR   10-APR-2002; 2002JP-00108621.
PR   10-JUN-2002; 2002JP-00169232.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Mori M,  Hayashi K,  Miya H,  Sato S,  Kitada C,  Matsumoto H;
PI   Nagi T,  Shimomura Y;
XX
DR   WPI; 2003-313356/30.
XX
PT   Polypeptides binding to G-protein coupled receptors TGR23-1 and TGR23-2
PT   for prevention and treatment of obesity, cancer and appetite disorders.
XX
PS   Example 46; Page 330; 338pp; Japanese.
XX
CC   The present invention describes polypeptides (I) and their amides, esters
CC   and salts which bind to the human G protein-coupled receptor (GPCR)
CC   proteins TGR23-1 and TGR23-2. TGR23 proteins have anorectic and
CC   cytostatic activities. (I) can be used in the treatment, prevention and
CC   diagnosis of obesity disorders and cancer (including cancer of the
CC   intestines, colon, breast, lung (including non-small cell lung cancer),
CC   prostate, oesophagus, stomach, liver, pancreas, kidney, womb, ovary,
CC   testis, bladder and brain, and blood cancers). (I) can also be used in
CC   appetite stimulation. ACC68807 to ACC68890 and ABP97241 to ABP97280
CC   represent sequences used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 7 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1857 GACCCACACACTTAGCCATT 1876
              |||||||| | ||| | |||
Db          1 GACCCACAGAGTTATCAATT 20


RESULT 5129
ACA92598/c
ID   ACA92598 standard; DNA; 20 BP.
XX
AC   ACA92598;
XX
DT   11-AUG-2003  (first entry)
XX
DE   Human N ras antisense oligonucleotide ISIS 14679.
XX
KW   Human; ras; cancer; cancer cell proliferation; ras oncogene; oncogene;
KW   colorectal cancer; melanoma; liposarcoma; ss; mesothelioma; sarcoma;
KW   colon cancer; pancreatic cancer; antisense.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   US2003013670-A1.
XX
PD   16-JAN-2003.
XX
PF   30-MAY-2001; 2001US-00870002.
XX
PR   05-OCT-1992;   92US-00958134.
PR   21-JAN-1993;   93US-00007996.
PR   01-OCT-1993;   93WO-US009346.
PR   03-APR-1995;   95US-00411734.
PR   08-JUL-1997;   97US-00889296.
PR   03-AUG-1998;   98US-00128494.
PR   22-MAY-2000; 2000US-00575554.
XX
PA   (MONI/) MONIA B P.
PA   (COWS/) COWSERT L M.
PA   (MANO/) MANOHARAN M.
PA   (DORR/) DORR F A.
PA   (HOLM/) HOLMLUND J.
XX
PI   Monia BP,  Cowsert LM,  Manoharan M,  Dorr FA,  Holmlund J;
XX
DR   WPI; 2003-438917/41.
XX
PT   Composition comprising an antisense oligonucleotide targeted to nucleic
PT   acids encoding human ras, and capable of inhibiting ras expression,
PT   useful for treating or preventing colorectal cancer, melanoma, or
PT   sarcoma.
XX
PS   Disclosure; Page 14; 46pp; English.
XX
CC   The invention relates to a composition comprising an oligonucleotide
CC   which is targeted to a nucleic acid encoding human ras, which is capable
CC   of inhibiting ras expression, and at least one chemotherapeutic agent.
CC   The composition is useful for modulating the expression of human ras in
CC   tissues or cells containing a ras gene. The compostion is also useful for
CC   inhibiting the proliferation of cancer cells, where the cancer cells are
CC   blood cells, preferably peripheral blood mononuclear cells. The
CC   composition is useful for treating or preventing a condition arising from
CC   the activation of ras oncogene which involves contacting an animal
CC   suspected of having a condition (e.g. hyperproliferative condition such
CC   as cancer preferably colorectal cancer, melanoma, liposarcoma,
CC   mesothelioma, sarcoma, colon cancer or pancreatic cancer) arising from
CC   the activation of ras oncogene such as abnormal expression of the ras
CC   oncogene. The present sequence represents a human ras antisense
CC   oligonucleotide
XX
SQ   Sequence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         69 GACGCCTGGTCACCGTGACC 88
              | |||||||| || ||| ||
Db         20 GCCGCCTGGTTACTGTGTCC 1
```

RESULT 5130
ABZ79328
ID ABZ79328 standard; DNA; 20 BP.
XX
AC ABZ79328;
XX
DT 01-MAY-2003 (first entry)
XX
DE Acetyl-Coenzyme A-carboxylase-alpha gene PCR primer, SEQ ID 15.
XX
KW Human; enzyme; acetyl-Coenzyme A-carboxylase-alpha; ACC-alpha; cancer;
KW breast; ovary; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2002100896-A2.
XX
PD 19-DEC-2002.
XX
PF 12-JUN-2002; 2002WO-FR002015.
XX
PR 13-JUN-2001; 2001FR-00007740.
PR 05-MAR-2002; 2002FR-00002788.
XX
PA (CNRS) CNRS CENT NAT RECH SCI.
PA (UYLY-) UNIV LYON 1 BERNARD CLAUDE.
XX
PI Dalla Venezia NL, Magnard CM, Lenoir GM, Sinilnikova-Erard O;
XX
DR WPI; 2003-175165/17.
XX
PT In vitro diagnosis of cancer, particularly breast and ovarian cancer, or
PT susceptibility, comprises detecting alterations in the acetyl coenzyme A-
PT carboxylase alpha gene or protein expression.
XX
PS Example 1; Page 10; 56pp; French.
XX
CC The present invention relates to human acetyl-Coenzyme A-carboxylase-
CC alpha (ACC-alpha; see ABZ79442), which can be used for in vitro diagnosis
CC of cancer (or of an increased risk of developing it), by detecting ACC-
CC alpha gene mutations or polymorphisms, or altered ACC-alpha protein
CC expression, relative to a control population. The method is particularly
CC used to diagnose cancer, especially of breast or ovary, or for assessing
CC the risk of developing such cancers. The present sequence is a PCR
CC primer, which was used in an example from the invention
XX
SQ Sequence 20 BP; 7 A; 5 C; 5 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2356 TGTATTTTAAGAAACAGTGC 2375
|||| | ||||||||| ||
Db 1 TGTACCTCAAGAAACAGGGC 20

RESULT 5131
ADA00265/c
ID ADA00265 standard; DNA; 20 BP.
XX
AC ADA00265;
XX
DT 06-NOV-2003 (first entry)
XX
DE RIP 140 gene PCR primer SEQ ID NO:45.
XX
KW substrate; ligand; signal; ligand binding; immobilisation;
KW gene engineering; genetic engineering; structure; biological activity;
KW ligand-receptor binding; PCR primer; amplification; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003019199-A1.
XX
PD 06-MAR-2003.
XX
PF 22-AUG-2002; 2002WO-JP008444.
XX
PR 22-AUG-2001; 2001JP-00250974.
XX
PA (TAKA-) TAKARA BIO INC.
XX
PI Ohmi T, Kato I;
XX
DR WPI; 2003-290095/28.
XX
PT Substrates having number of ligands immobilized on predetermined regions
PT of its surface, applicable in gene engineering for studying relationship
PT between structures and biological activity of endocrine disrupters.
XX
PS Example 1; Page 43; 52pp; Japanese.
XX
CC The present invention describes a substrate having a number of ligands
CC which have been immobilised onto a predetermined region of its surface,
CC in which the region on the substrate has such a shape as to allow the
CC concentration of signals caused by binding of the ligands to receptors in
CC the region toward the receiver. Also described is a substrate for the
CC immobilisation of such ligands. The substrates are applicable in gene
CC engineering for studying relationship between structures and biological
CC activity e.g. effect of endocrine disrupters on various genes and also in
CC investigating the effect of hormones, drugs and other chemicals on the
CC environment. Such substrates are highly sensitive in detecting the ligand
CC -receptor binding, with affinity and reproducibility. The ligand-
CC immobilised substrates can be produced in high density e.g. in microarray
CC form to provide finely tuned results. ADA00221 to ADA00282 represent PCR
CC primers used for amplifying genes in the exemplification of the present
CC invention.
XX
SQ Sequence 20 BP; 2 A; 6 C; 3 G; 9 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 895 AGTGGCTGAAGTACAGAGGC 914
| || |||||| | ||||||
Db 20 AATGACTGAAGCAAAGAGGC 1

RESULT 5132
ABQ77167/c
ID ABQ77167 standard; DNA; 20 BP.
XX
AC ABQ77167;
XX
DT 24-APR-2003 (first entry)
XX
DE Human ABCC12 exon 3/intron 3 boundary.
XX
KW Adenosine triphosphate (ATP)-binding cassette transporter subfamily C12;
KW cystic fibrosis transmembrane conductance regulator; human; CFTR/MRP;
KW multidrug resistance-like subgroup; somatic gene therapy; ABCC12;
KW paroxysmal kinesigenic choreoathetosis; cysteinyl leukotriene;
KW anionic drug; methotrexate; neutral drug; glutathione; glucuronate;
KW sulphate conjugated drug; ds.
XX
OS Homo sapiens.
XX
PN WO200285943-A2.
XX
PD 31-OCT-2002.
XX
PF 05-MAR-2002; 2002WO-EP003320.
XX

PR 05-MAR-2001; 2001US-0272759P.
XX
PA (AVET) AVENTIS PHARMA SA.
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Rosier-Montus M, Prades C, Arnould-Reguigne I, Denefle P, Dean M;
PI Allikmets R;
XX
DR WPI; 2003-093101/08.
XX
PT New ATP-binding cassette transporter gene subfamily C12, ABCC12
PT polypeptide, useful for preventing or treating paroxysmal kinesigenic
PT choreoathetosis.
XX
PS Disclosure; Page 43; 122pp; English.
XX
CC This invention describes a novel human ABCC12 (adenosine triphosphate
CC (ATP)-binding cassette transporter gene subfamily C12, i.e. cystic
CC fibrosis transmembrane conductance regulator/multidrug resistance-like
CC subgroup (CFTR/MRP) family) polypeptide and its encoding polynucleotides
CC The polypeptide is useful for screening agonists and antagonist of the
CC ABCC12 polypeptide. The products of the invention are useful for
CC screening an active ingredient for preventing and treating paroxysmal
CC kinesigenic choreoathetosis or pathologies linked to dysfunction of
CC transport of organic anion transporters such as cysteinyl leukotriene,
CC anionic drugs, such as methotrexate, neutral drugs conjugated to acidic
CC ligands, such as glutathione, glucuronate or sulphate conjugated drugs
CC and can be used for somatic gene therapy. This sequence represents a
CC region corresponding to an exon/intron boundary from the gene encoding a
CC human ABCC12 isoform described in the disclosure of the invention
XX
SQ Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 613 GCTGCCCCACGCACACGCCC 632
||||||||| ||| ||| ||||
Db 20 GCTGCCGCACTCACCGGCCC 1

RESULT 5133
ABZ10372
ID ABZ10372 standard; DNA; 20 BP.
XX
AC ABZ10372;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related primer SEQ ID NO:512.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP003401.
XX
PR 26-MAR-2001; 2001US-0278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T, Pelet C;
PI Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent that
PT distinguishes between methylated and non-methylated CpG dinucleotides.
XX
PS Claim 11; Page 31; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related DNA
CC sequences. The nucleotide sequences from the present invention can also
CC be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables a
CC highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2683 GGTGAAATGGAGATTTGGAA 2702
|| |||||||||| || ||
Db 1 GGGGAAATGGAGAAGTGTAA 20

RESULT 5134
ABZ10249
ID ABZ10249 standard; DNA; 20 BP.
XX
AC ABZ10249;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related primer SEQ ID NO:389.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP003401.
XX
PR 26-MAR-2001; 2001US-0278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T, Pelet C;

PI Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent that
PT distinguishes between methylated and non-methylated CpG dinucleotides.
XX
PS Claim 11; SEQ ID NO 389; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related DNA
CC sequences. The nucleotide sequences from the present invention can also
CC be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables a
CC highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2683 GGTGAAATGGAGATTTGGAA 2702
|| |||||||||| || ||
Db 1 GGGGAAATGGAGAAGTGTAA 20

RESULT 5135
ADA20472
ID ADA20472 standard; DNA; 20 BP.
XX
AC ADA20472;
XX
DT 20-NOV-2003 (first entry)
XX
DE Prostate tumour related gene CDC25A PCR primer #1.
XX
KW cytostatic; gene therapy; genetic marker; epigenetic parameter;
KW classification; differentiation; diagnosis; prostate tumour;
KW prostate cancer; cytosine methylation; uracil;
KW single nucleotide polymorphism; SNP; prostate carcinoma; ss; primer; PCR.
XX
OS Homo sapiens.
XX
PN WO2002103042-A2.
XX
PD 27-DEC-2002.
XX
PF 14-JUN-2002; 2002WO-EP006605.
XX
PR 14-JUN-2001; 2001DE-01028508.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Distler J, Model F, Adorjan P;
XX
DR WPI; 2003-167536/16.
XX
PT Determining genetic and/or epigenetic parameters, useful for the
PT classification, differentiation and/or diagnosis of prostate tumors or a
PT predisposition to prostate cancer, comprises analyzing cytosine
PT methylation.
XX
PS Example 2; Page 16; 376pp; English.
XX
CC The invention relates to a method of determining genetic and/or
CC epigenetic parameters for the classification, differentiation and/or
CC diagnosis of prostate tumours or the predisposition to prostate cancer,
CC by analysing cytosine methylation in a sample of genomic DNA. The method
CC comprises chemically treating unmethylated cytosine bases at the 5-
CC position to uracil or another base, which is dissimilar to cytosine in
CC terms of hybridization behaviour; followed by amplifying at least one
CC fragment of the chemically pre-treated genomic DNA using sets of primer
CC oligonucleotides and a polymerase. The oligomers or probes derived from
CC them are useful for detecting the methylation state of all CpG
CC dinucleotides and/or single nucleotide polymorphisms (SNPs) in a
CC chemically pre-treated genomic DNA. They are all useful for treating
CC prostate carcinoma. This sequence represents an oligonucleotide used to
CC amplify a gene possibly involved in predisposition to prostate cancer
CC which may contain methylated or unmethylated CpG dinucleotides.
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2683 GGTGAAATGGAGATTTGGAA 2702
|| |||||||||| || ||
Db 1 GGGGAAATGGAGAAGTGTAA 20

RESULT 5136
ADA20493
ID ADA20493 standard; DNA; 20 BP.
XX
AC ADA20493;
XX
DT 20-NOV-2003 (first entry)
XX
DE Prostate tumour related gene DAPK1 PCR primer #2.
XX
KW cytostatic; gene therapy; genetic marker; epigenetic parameter;
KW classification; differentiation; diagnosis; prostate tumour;
KW prostate cancer; cytosine methylation; uracil;
KW single nucleotide polymorphism; SNP; prostate carcinoma; ss; primer; PCR.
XX
OS Homo sapiens.
XX
PN WO2002103042-A2.
XX
PD 27-DEC-2002.
XX
PF 14-JUN-2002; 2002WO-EP006605.
XX
PR 14-JUN-2001; 2001DE-01028508.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Distler J, Model F, Adorjan P;
XX
DR WPI; 2003-167536/16.
XX
PT Determining genetic and/or epigenetic parameters, useful for the
PT classification, differentiation and/or diagnosis of prostate tumors or a
PT predisposition to prostate cancer, comprises analyzing cytosine
PT methylation.
XX
PS Example 2; Page 17; 376pp; English.

```
XX
CC   The invention relates to a method of determining genetic and/or
CC   epigenetic parameters for the classification, differentiation and/or
CC   diagnosis of prostate tumours or the predisposition to prostate cancer,
CC   by analysing cytosine methylation in a sample of genomic DNA. The method
CC   comprises chemically treating unmethylated cytosine bases at the 5-
CC   position to uracil or another base, which is dissimilar to cytosine in
CC   terms of hybridization behaviour; followed by amplifying at least one
CC   fragment of the chemically pre-treated genomic DNA using sets of primer
CC   oligonucleotides and a polymerase. The oligomers or probes derived from
CC   them are useful for detecting the methylation state of all CpG
CC   dinucleotides and/or single nucleotide polymorphisms (SNPs) in a
CC   chemically pre-treated genomic DNA. They are all useful for treating
CC   prostate carcinoma. This sequence represents an oligonucleotide used to
CC   amplify a gene possibly involved in predisposition to prostate cancer
CC   which may contain methylated or unmethylated CpG dinucleotides.
XX
SQ   Sequence 20 BP; 5 A; 0 C; 6 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2695 ATTTGGAATTGAACTCTCTG 2714
                ||||||| ||||| | | ||
Db          1 ATTTGGAGTTGAAGTATTTG 20


RESULT 5137
ADA84290
ID   ADA84290 standard; DNA; 20 BP.
XX
AC   ADA84290;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human CSNK2B PCR primer 1.
XX
KW   renal cancer; prostate cancer; cytosine methylation;
KW   single nucleotide polymorphism; histological; cytological; ss; primer;
KW   PCR.
XX
OS   Homo sapiens.
XX
PN   WO2002103041-A2.
XX
PD   27-DEC-2002.
XX
PF   14-JUN-2002; 2002WO-EP006603.
XX
PR   14-JUN-2001; 2001DE-01028509.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Distler J,  Model F,  Adorjan P;
XX
DR   WPI; 2003-183991/18.
XX
PT   Method for characterizing, classifying and/or differentiating renal and
PT   prostate cancers, by analyzing the genetic and/or epigenetic parameters
PT   of genomic DNA, particularly by determining its cytosine methylation
PT   status.
XX
PS   Example 2; Page 17; 211pp; English.
XX
CC   The invention relates to a novel method for characterising, classifying
CC   and/or differentiating renal and prostate cancer. The method comprises
CC   extracting genomic DNA from a biological sample, converting cytosine
CC   bases (by chemical treatment) that are unmethylated at the 5-position to
CC   uracil or another base, and amplifying at least one fragment of the
CC   chemically pretreated genomic DNA using sets of primer oligonucleotides
CC   and a polymerase. The method is useful for detecting the cytosine
CC   methylation state and/or single nucleotide polymorphisms in genomic DNA,
CC   particularly for characterising, classifying and/or differentiating renal
CC   and prostate cancers. The oligomers are useful as primer oligonucleotides
CC   for the amplification of any of the 112 DNA sequences of the invention.
CC   The set of oligomer probes is useful for detecting the cytosine
CC   methylation state and/or single nucleotide polymorphisms in any of the
CC   112 chemically pretreated genomic DNA sequences. The method is also
CC   useful for identifying the tissue of origin of cancer cells. The method
CC   allows the classification, differentiation and/or diagnosis of cancer
CC   tissues using minute samples which would be inadequate for histological
CC   or cytological analysis. The present sequence is used in the
CC   exemplification of the invention.
XX
SQ   Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2683 GGTGAAATGGAGATTTGGAA 2702
                || |||||||||  || ||
Db          1 GGGGAAATGGAGAAGTGTAA 20


RESULT 5138
ADA84294
ID   ADA84294 standard; DNA; 20 BP.
XX
AC   ADA84294;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human DBCCR1 PCR primer 1.
XX
KW   renal cancer; prostate cancer; cytosine methylation;
KW   single nucleotide polymorphism; histological; cytological; ss; primer;
KW   PCR.
XX
OS   Homo sapiens.
XX
PN   WO2002103041-A2.
XX
PD   27-DEC-2002.
XX
PF   14-JUN-2002; 2002WO-EP006603.
XX
PR   14-JUN-2001; 2001DE-01028509.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Distler J,  Model F,  Adorjan P;
XX
DR   WPI; 2003-183991/18.
XX
PT   Method for characterizing, classifying and/or differentiating renal and
PT   prostate cancers, by analyzing the genetic and/or epigenetic parameters
PT   of genomic DNA, particularly by determining its cytosine methylation
PT   status.
XX
PS   Example 2; Page 17; 211pp; English.
XX
CC   The invention relates to a novel method for characterising, classifying
CC   and/or differentiating renal and prostate cancer. The method comprises
CC   extracting genomic DNA from a biological sample, converting cytosine
CC   bases (by chemical treatment) that are unmethylated at the 5-position to
CC   uracil or another base, and amplifying at least one fragment of the
CC   chemically pretreated genomic DNA using sets of primer oligonucleotides
CC   and a polymerase. The method is useful for detecting the cytosine
CC   methylation state and/or single nucleotide polymorphisms in genomic DNA,
CC   particularly for characterising, classifying and/or differentiating renal
CC   and prostate cancers. The oligomers are useful as primer oligonucleotides
CC   for the amplification of any of the 112 DNA sequences of the invention.
CC   The set of oligomer probes is useful for detecting the cytosine
CC   methylation state and/or single nucleotide polymorphisms in any of the
```

```
CC   112 chemically pretreated genomic DNA sequences. The method is also
CC   useful for identifying the tissue of origin of cancer cells. The method
CC   allows the classification, differentiation and/or diagnosis of cancer
CC   tissues using minute samples which would be inadequate for histological
CC   or cytological analysis. The present sequence is used in the
CC   exemplification of the invention.
XX
SQ   Sequence 20 BP; 5 A; 0 C; 6 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2695 ATTTGGAATTGAACTCTCTG 2714
              ||||||| ||||| | | ||
Db          1 ATTTGGAGTTGAAGTATTTG 20


RESULT 5139
ACA10235
ID   ACA10235 standard; DNA; 20 BP.
XX
AC   ACA10235;
XX
DT   02-JUN-2003  (first entry)
XX
DE   Human NOVX DNA PCR primer #53.
XX
KW   Human; NOVX; PCR; ss; metabolic disorder; diabetes; infectious disease;
KW   obesity; anorexia; cancer; cardiovascular disorder; asthma; neurogenesis;
KW   neurodegenerative disorder; epilepsy; immune disorder; osteoarthritis;
KW   haematopoietic disorder; inflammatory skin disorder; dyslipidemia;
KW   haematopoiesis; wound healing; angiogenesis; bacterial infection; primer;
KW   viral infection; fungal infection; helminthic infection; atherosclerosis;
KW   protozoal infection; hypertension.
XX
OS   Homo sapiens.
XX
PN   WO200290504-A2.
XX
PD   14-NOV-2002.
XX
PF   02-MAY-2002; 2002WO-US014342.
XX
PR   03-MAY-2001; 2001US-0288395P.
PR   04-MAY-2001; 2001US-0288900P.
PR   07-MAY-2001; 2001US-0289087P.
PR   14-MAY-2001; 2001US-0290753P.
PR   15-MAY-2001; 2001US-0291189P.
PR   16-MAY-2001; 2001US-0291243P.
PR   18-MAY-2001; 2001US-0292001P.
PR   21-MAY-2001; 2001US-0292374P.
PR   22-MAY-2001; 2001US-0292587P.
PR   23-MAY-2001; 2001US-0293107P.
PR   29-MAY-2001; 2001US-0294110P.
PR   30-MAY-2001; 2001US-0294434P.
PR   31-MAY-2001; 2001US-0294827P.
PR   18-JUN-2001; 2001US-0298988P.
PR   31-JUL-2001; 2001US-0308901P.
PR   17-AUG-2001; 2001US-0313388P.
PR   21-AUG-2001; 2001US-0313851P.
PR   21-AUG-2001; 2001US-0313937P.
PR   17-SEP-2001; 2001US-0322701P.
PR   17-SEP-2001; 2001US-0322802P.
PR   25-SEP-2001; 2001US-0324757P.
PR   27-SEP-2001; 2001US-0325314P.
PR   27-SEP-2001; 2001US-0325682P.
PR   21-NOV-2001; 2001US-0332129P.
PR   03-DEC-2001; 2001US-0336882P.
PR   14-DEC-2001; 2001US-0340305P.
PR   01-MAY-2002; 2002US-00138588.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Alsobrook JP,  Anderson DW,  Boldog FL,  Burgess CE,  Casman SJ;
PI   Chapoval A,  Edinger S,  Gerlach V,  Gorman L,  Gunther E,  Guo X;
PI   Kekuda R,  Lepley DM,  Li L,  Liu X,  Malyankar UM,  Miller CE;
PI   Millet I,  Padigaru M,  Patturajan M,  Pena CEA,  Rieger DK,  Shenoy SG;
PI   Shimkets RA,  Spytek KA,  Taupier RJ,  Vernet CAM,  Voss EZ;
PI   Zerhusen BD;
XX
DR   WPI; 2003-103512/09.
XX
PT   New isolated NOVX polypeptides and polynucleotides, useful for
PT   preventing, diagnosing or treating NOVX-associated disorders, e.g.
PT   osteoarthritis, obesity, atherosclerosis, cancer, Parkinson's disease,
PT   asthma, or infections.
XX
PS   Example; Page 283; 340pp; English.
XX
CC   The invention relates to human NOVX polypeptides and the polynucleotides
CC   encoding them. The polypeptides, polynucleotides and antibodies that bind
CC   immunospecifically to the polypeptides are useful in the manufacture of a
CC   medicament for treating a syndrome associated with a human disease,
CC   preferably a NOVX-associated disorder. The sequences are useful for
CC   treating, preventing or diagnosing diseases such as metabolic disorders,
CC   diabetes, obesity, infectious diseases (viral, bacterial, fungal,
CC   helminthic, and protozoal), anorexia, cancer, cardiovascular disorders
CC   (e.g. hypertension, atherosclerosis), neurodegenerative disorders (e.g.
CC   Alzheimer's disease, Parkinson's disease), epilepsy, immune disorders,
CC   osteoarthritis, haematopoietic disorders, inflammatory skin disorders,
CC   asthma and various dyslipidemias. The nucleic acids and polypeptides may
CC   also be used as targets for the identification of small molecules that
CC   modulate or inhibit e.g. neurogenesis, cell differentiation, cell
CC   proliferation, haematopoiesis, wound healing and angiogenesis, and in the
CC   generation of antibodies that bind immunospecifically to NOVX substances
CC   for use in therapeutic or diagnostic methods. The nucleic acids are
CC   further used as hybridisation probes, and in chromosome mapping, tissue
CC   typing, preventive medicine and pharmacogenomics. This sequence
CC   represents a PCR primer used to amplify a human NOVX polynucleotide of
CC   the invention
XX
SQ   Sequence 20 BP; 3 A; 2 C; 6 G; 9 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2396 TTATGCGTAATTTAATGGGG 2415
              |||||| |  || |||||||
Db          1 TTATGCTTGTTTCAATGGGG 20


RESULT 5140
ABT43367
ID   ABT43367 standard; DNA; 20 BP.
XX
AC   ABT43367;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Neuroblastoma-related DNA sequence #282.
XX
KW   Neuroblastoma; prognosis; ds; oligonucleotide.
XX
OS   Unidentified.
XX
PN   WO2002103017-A1.
XX
PD   27-DEC-2002.
XX
PF   30-MAY-2002; 2002WO-JP005295.
XX
PR   31-MAY-2001; 2001JP-00163666.
PR   24-AUG-2001; 2001JP-00255260.
XX
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PA   (CHIB-) CHIBA PREFECTURE.
PA   (HISM ) HISAMITSU PHARM CO LTD.
XX
PI   Nakagawara A;
XX
DR   WPI; 2003-167523/16.
XX
PT   Nucleic acids isolated from neuroblastoma showing enhanced expression in
PT   human neuroblastoma with good prognosis, useful in clarifying good/poor
PT   prognosis of neuroblastoma and providing genetic data.
XX
PS   Example 5; Page 25; 444pp; Japanese.
XX
CC   The invention comprises DNA sequences that show enhanced expression in
CC   human neuroblastoma with good prognosis. The DNA sequences of the
CC   invention are useful in clarifying good/poor prognosis of neuroblastoma.
CC   The present DNA sequence was used in the exemplification of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1784 ACCCCATTCTTTCCTTCTCT 1803
              |||||| |||||    |||||
Db          1 ACCCCACTCTTTGGGTCTCT 20


RESULT 5141
ABT43222
ID   ABT43222 standard; DNA; 20 BP.
XX
AC   ABT43222;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Neuroblastoma-related DNA sequence #137.
XX
KW   Neuroblastoma; prognosis; ds; oligonucleotide.
XX
OS   Unidentified.
XX
PN   WO2002103017-A1.
XX
PD   27-DEC-2002.
XX
PF   30-MAY-2002; 2002WO-JP005295.
XX
PR   31-MAY-2001; 2001JP-00163666.
PR   24-AUG-2001; 2001JP-00255260.
XX
PA   (CHIB-) CHIBA PREFECTURE.
PA   (HISM ) HISAMITSU PHARM CO LTD.
XX
PI   Nakagawara A;
XX
DR   WPI; 2003-167523/16.
XX
PT   Nucleic acids isolated from neuroblastoma showing enhanced expression in
PT   human neuroblastoma with good prognosis, useful in clarifying good/poor
PT   prognosis of neuroblastoma and providing genetic data.
XX
PS   Example 5; Page 24; 444pp; Japanese.
XX
CC   The invention comprises DNA sequences that show enhanced expression in
CC   human neuroblastoma with good prognosis. The DNA sequences of the
CC   invention are useful in clarifying good/poor prognosis of neuroblastoma.
CC   The present DNA sequence was used in the exemplification of the invention
XX
SQ   Sequence 20 BP; 2 A; 2 C; 8 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2311 AGCAATTTGTTGCTGCTTGT 2330
              |||| |||| ||||| | ||
Db          1 AGCAGTTTGGTGCTGTTGGT 20


RESULT 5142
ABX34233/c
ID   ABX34233 standard; DNA; 20 BP.
XX
AC   ABX34233;
XX
DT   10-FEB-2003  (first entry)
XX
DE   Antisense oligonucleotide against human SAA4 expression, ISIS 145087.
XX
KW   Human; ss; antisense; serum amyloid A4; SAA4; lipoprotein;
KW   apolipoprotein; high density lipoprotein; HDL; amyloid A; amyloid fibril;
KW   amyloidosis; inhibition; antagonist; diagnosis; antisense therapy;
KW   tumour formation; inflammatory disorder; rheumatoid arthritis;
KW   familial Mediterranean fever.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   US6455308-B1.
XX
PD   24-SEP-2002.
XX
PF   01-AUG-2001; 2001US-00920672.
XX
PR   01-AUG-2001; 2001US-00920672.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Freier SM;
XX
DR   WPI; 2003-066237/06.
XX
PT   New antisense compounds, useful for inhibiting the expression of serum
PT   amyloid A4, and for diagnosing, preventing or treating diseases
PT   associated with expression of serum amyloid A4, e.g. tumor formation or
PT   inflammatory disorders.
XX
PS   Example 15; Col 45-46; 42pp; English.
XX
CC   The invention discloses antisense oligonucleotides that specifically
CC   hybridise with a region encoding human serum amyloid A4 (SAA4) and
CC   inhibit its expression. Lipoproteins are globular, micelle-like particles
CC   which have been classified into five categories. The protein components
CC   of lipoproteins are known as apolipoproteins, and one family of these are
CC   the serum amyloid proteins. These apolipoproteins are associated with the
CC   high density lipoprotein (HDL) and act as precursors of the amyloid A
CC   proteins found in amyloid fibril deposits formed during the process of
CC   amyloidosis. The antisense compounds and methods are useful for
CC   modulating, (i.e. inhibiting) the expression of serum amyloid A4
CC   (antagonists). The compounds are also useful for diagnosing, preventing
CC   and treating (using antisense therapy) diseases associated with elevated
CC   expression of serum amyloid A4, e.g. tumour formation or inflammatory
CC   disorders such as rheumatoid arthritis and familial Mediterranean fever.
CC   The antisense compounds can also be used as research reagents and
CC   diagnostics, or as tools in differential and/or combinatorial analyses to
CC   elucidate expression patterns of a portion or the entire complement of
CC   genes expressed within cells or tissues. The sequences presented in
CC   ABX34211-ABX34288 are the antisense oligonucleotides which are directed
CC   against human SAA4 expression. Each antisense oligonucleotide has a
CC   phosphorothioate backbone, all cytidines residues are 5-methylcytidines
CC   and bases 1-5 and 16-20 are 2-methoxyethyl (2'-MOE) nucleotides
XX
SQ   Sequence 20 BP; 6 A; 7 C; 4 G; 3 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1390 GGTGTCTGCCCTGCAGAACT 1409
              ||||||||  ||||  ||||
Db         20 GGTGTCTGGGCTGCTAAACT 1


RESULT 5143
ABX10779/c
ID   ABX10779 standard; DNA; 20 BP.
XX
AC   ABX10779;
XX
DT   10-MAY-2003  (first entry)
XX
DE   Human dual specific phosphatase 8 DNA antisense oligonucleotide #13.
XX
KW   Human; dual specific phosphatase 8; antisense; infection; inflammation;
KW   tumour formation; cytostatic; antiinflammatory; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   US6482644-B1.
XX
PD   19-NOV-2002.
XX
PF   01-AUG-2001; 2001US-00920668.
XX
PR   01-AUG-2001; 2001US-00920668.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2003-298140/29.
XX
PT   New antisense compound targeted to a nucleic acid encoding human dual
PT   specific phosphatase 8, for modulating gene expression and treating
PT   diseases associated with expression of the phosphatase in humans.
XX
PS   Example 15; Col 45; 36pp; English.
XX
CC   The invention relates to a compound targeted to the coding region of a
CC   nucleic acid encoding human dual specific phosphatase 8, where the
CC   compound specifically hybridises with the region and inhibits the
CC   expression of human dual specific phosphatase 8. The compound is useful
CC   for inhibiting the expression of human dual specific phosphatase 8 in
CC   cells or tissues, and for treating an animal, particularly a human,
CC   suspected of having or being prone to a disease or condition associated
CC   with expression of dual specific phosphatase 8. The compound is useful
CC   for diagnostics, therapeutics and as a research reagent, e.g. to prevent
CC   or delay infection, inflammation or tumour formation, and to distinguish
CC   between functions of various members of a biological pathway. This
CC   sequence represents an antisense oligonucleotide which inhibits
CC   expression of human dual specific phosphatase 8 DNA
XX
SQ   Sequence 20 BP; 5 A; 2 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        532 CGGCCTACTGCCCCACCTCT 551
              | || | ||||| |||||||
Db         20 CCGCATCCTGCCTCACCTCT 1


RESULT 5144
ABX10791/c
ID   ABX10791 standard; DNA; 20 BP.
XX
AC   ABX10791;
XX
DT   10-MAY-2003  (first entry)
XX
DE   Human dual specific phosphatase 8 DNA antisense oligonucleotide #25.
XX
KW   Human; dual specific phosphatase 8; antisense; infection; inflammation;
KW   tumour formation; cytostatic; antiinflammatory; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   US6482644-B1.
XX
PD   19-NOV-2002.
XX
PF   01-AUG-2001; 2001US-00920668.
XX
PR   01-AUG-2001; 2001US-00920668.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2003-298140/29.
XX
PT   New antisense compound targeted to a nucleic acid encoding human dual
PT   specific phosphatase 8, for modulating gene expression and treating
PT   diseases associated with expression of the phosphatase in humans.
XX
PS   Claim 3; Col 45; 36pp; English.
XX
CC   The invention relates to a compound targeted to the coding region of a
CC   nucleic acid encoding human dual specific phosphatase 8, where the
CC   compound specifically hybridises with the region and inhibits the
CC   expression of human dual specific phosphatase 8. The compound is useful
CC   for inhibiting the expression of human dual specific phosphatase 8 in
CC   cells or tissues, and for treating an animal, particularly a human,
CC   suspected of having or being prone to a disease or condition associated
CC   with expression of dual specific phosphatase 8. The compound is useful
CC   for diagnostics, therapeutics and as a research reagent, e.g. to prevent
CC   or delay infection, inflammation or tumour formation, and to distinguish
CC   between functions of various members of a biological pathway. This
CC   sequence represents an antisense oligonucleotide which inhibits
CC   expression of human dual specific phosphatase 8 DNA
XX
SQ   Sequence 20 BP; 4 A; 5 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        247 GCGGGTCCCCCACCTCTCCT 266
              ||| | ||  ||||||||||
Db         20 GCGCGGCCTGCACCTCTCCT 1


RESULT 5145
AAD55805
ID   AAD55805 standard; DNA; 20 BP.
XX
AC   AAD55805;
XX
DT   07-AUG-2003  (first entry)
XX
DE   Major ampullate spidroin 2 (MaSp2) DNA amplifying PCR primer #6.
XX
KW   Spider silk protein; flagelliform-like spider silk protein; FLAG; MaSp;
KW   major ampullate spidroin; fabric; medical covering; clothing; parachute;
KW   rope; reinforced plastic; suture; aerial device wing; sail; hand glider;
KW   implantation biomaterial; resin product; fiber-reinforced plastic;
KW   thermal injected plastic; PCR; primer; ss.
```

XX
OS Unidentified.
XX
PN WO2003020916-A2.
XX
PD 13-MAR-2003.
XX
PF 28-MAR-2002; 2002WO-US009663.
XX
PR 29-AUG-2001; 2001US-0315529P.
XX
PA (UYWY-) UNIV WYOMING.
XX
PI Lewis RV, Hayashi CY, Gatesy JE, Motriuk D;
XX
DR WPI; 2003-290190/28.
XX
PT Novel spider silk protein e.g. major ampullate spidroin 2-like,
PT flagelliform (Flag)-like spider silk proteins, useful for producing
PT fabric, sutures, medical coverings, high-tech clothing, rope.
XX
PS Example 1; Page 42; 99pp; English.
XX
CC The invention relates to novel spider silk proteins e.g. major ampullate
CC spidroin 1-like (MaSp1) spider silk protein, major ampullate spidroin 2-
CC like (MaSp2) spider silk protein, flagelliform (Flag)-like spider silk
CC proteins and spider silk proteins comprising atypical repetitive motifs.
CC Sequences of the invention are useful for producing fabrics, sutures,
CC medical coverings, high-tech clothing, rope and reinforced plastics. They
CC are used to make high-tech clothing, rope, sails, parachutes, wings on
CC aerial devices (e.g. hand gliders), flexible tie downs for electrical
CC components, sutures and as biomaterials for implantation (e.g. artificial
CC ligaments or aortic banding). Biomedical applications of the spider silk
CC fibers involve use of natural and/or synthetic spider silk fibers in
CC sutures used in surgical procedures, including eye surgery, vascular
CC closure, bowel surgery, cosmetic surgery, reconstructive surgery (e.g.
CC nerve or tympanic membrane reconstruction) and central nervous system
CC surgery. Natural and synthetic spider silk fibers are also used in the
CC generation of antibiotic impregnated sutures and implant material and
CC matrix material for reconstruction of bone and connective tissue. Spider
CC silk proteins can be modified to alter various physical properties of
CC fibroin and different spider silk proteins. Synthetic spider silk fibers
CC may be mixed with various plastics and/or resins to prepare a fiber-
CC reinforced plastic and/or resin product. They are useful as structural
CC reinforcement material in thermal injected plastics. The present sequence
CC is major ampullate spidroin 2 (MaSp2) DNA amplifying PCR primer used in
CC the exemplification of the invention
XX
SQ Sequence 20 BP; 7 A; 4 C; 7 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy         24 CAGTGACCCGGACAGCAAGG 43
              ||  || | ||||||||||
Db          1 CAAGGATCTGGACAGCAAGG 20
```

RESULT 5146
AAL53961
ID AAL53961 standard; DNA; 20 BP.
XX
AC AAL53961;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related ribonucleotide, SEQ ID No 11.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 4; Fig 3; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents a ribonucleotide relating to the
CC mutation detecting method of the invention
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||||    |||||||||
Db          1 TTTTTTTAAAATTTTTTTTT 20
```

RESULT 5147
AAL53959
ID AAL53959 standard; DNA; 20 BP.
XX
AC AAL53959;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related ribonucleotide, SEQ ID No 9.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX

PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 4; Fig 3; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents a ribonucleotide relating to the
CC mutation detecting method of the invention
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||||    |||||||||
Db          1 TTTTTTTAAAATTTTTTTTT 20
```

RESULT 5148
AAL53967/c
ID AAL53967 standard; DNA; 20 BP.
XX
AC AAL53967;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related ribonucleotide, SEQ ID No 17.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 5; Fig 4; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents a ribonucleotide relating to the
CC mutation detecting method of the invention
XX
SQ Sequence 20 BP; 16 A; 1 C; 0 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1758 TTATTCATTAAGCTTTTTTT 1777
              || ||  ||||| |||||||
Db         20 TTTTTTTTTAAGATTTTTTT 1
```

RESULT 5149
AAL53958
ID AAL53958 standard; DNA; 20 BP.
XX
AC AAL53958;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related ribonucleotide, SEQ ID No 8.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 4; Fig 3; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA

CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents a ribonucleotide relating to the
CC mutation detecting method of the invention
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2155 TTTTTTTCTCCTTTTTTTT 2174
||||||| |||||||||
Db 1 TTTTTTTAAAATTTTTTTTT 20

RESULT 5150
AAL53962/c
ID AAL53962 standard; DNA; 20 BP.
XX
AC AAL53962;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related oligo, SEQ ID No 12.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 4; Fig 3; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents an oligo relating to the mutation
CC detecting method of the invention
XX
SQ Sequence 20 BP; 16 A; 0 C; 0 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTTTTTTTT 2185
||||||||| |||||||
Db 20 TTTTTTTTTAAAATTTTTTT 1

RESULT 5151
AAL53960
ID AAL53960 standard; DNA; 20 BP.
XX
AC AAL53960;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related ribonucleotide, SEQ ID No 10.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 4; Fig 3; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents a ribonucleotide relating to the
CC mutation detecting method of the invention
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              |||||||    |||||||||
Db          1 TTTTTTTAAAATTTTTTTTT 20


RESULT 5152
AAL53964/c
ID   AAL53964 standard; DNA; 20 BP.
XX
AC   AAL53964;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 14.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              |||||||||    |||||||
Db         20 TTTTTTTTTAACATTTTTTT 1


RESULT 5153
AAL53966/c
ID   AAL53966 standard; DNA; 20 BP.
XX
AC   AAL53966;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 16.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2155 TTTTTTTCTCCTTTTTTTTT 2174
              ||||||| | |  |||||||
Db         20 TTTTTTTTTACACTTTTTTT 1


RESULT 5154
ABT32534
ID   ABT32534 standard; DNA; 20 BP.
XX
AC   ABT32534;
XX
DT   08-MAY-2003  (first entry)
XX
DE   Neuroblastoma-related oligonucleotide #311.
XX
KW   Neuroblastoma; prognosis; spontaneous regression; primer; probe; ds;
KW   high malignancy.
XX
```

```
OS   Unidentified.
XX
PN   WO200297093-A1.
XX
PD   05-DEC-2002.
XX
PF   30-MAY-2002; 2002WO-JP005294.
XX
PR   30-MAY-2001; 2001JP-00162775.
PR   24-AUG-2001; 2001JP-00255226.
XX
PA   (CHIB-) CHIBA PREFECTURE.
PA   (HISM ) HISAMITSU PHARM CO LTD.
XX
PI   Nakagawara A;
XX
DR   WPI; 2003-140476/13.
XX
PT   Nucleic acids having higher expression in human neuroblastoma with poor
PT   prognosis for diagnostic prediction of neuroblastoma prognosis.
XX
PS   Example 5; Page 28; 111pp; Japanese.
XX
CC   The invention comprises nucleic acids that show increased expression in
CC   human neuroblastomas with poor prognosis over those with a good
CC   prognosis. The nucleic acids of the invention are useful as a tool for
CC   distinguishing neuroblastomas with a favourable prognosis (spontaneous
CC   regression) from neuroblastomas with a poor prognosis (high malignancy).
CC   The DNA sequences ABT32224 - ABT32571 represent oligonucleotides used in
CC   an example of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1784 ACCCCATTCTTTCCTTCTCT 1803
              |||||| |||||   |||||
Db          1 ACCCCACTCTTTGGGTCTCT 20


RESULT 5155
ABT32356
ID   ABT32356 standard; DNA; 20 BP.
XX
AC   ABT32356;
XX
DT   08-MAY-2003  (first entry)
XX
DE   Neuroblastoma-related oligonucleotide #133.
XX
KW   Neuroblastoma; prognosis; spontaneous regression; primer; probe; ds;
KW   high malignancy.
XX
OS   Unidentified.
XX
PN   WO200297093-A1.
XX
PD   05-DEC-2002.
XX
PF   30-MAY-2002; 2002WO-JP005294.
XX
PR   30-MAY-2001; 2001JP-00162775.
PR   24-AUG-2001; 2001JP-00255226.
XX
PA   (CHIB-) CHIBA PREFECTURE.
PA   (HISM ) HISAMITSU PHARM CO LTD.
XX
PI   Nakagawara A;
XX
DR   WPI; 2003-140476/13.
XX
PT   Nucleic acids having higher expression in human neuroblastoma with poor
PT   prognosis for diagnostic prediction of neuroblastoma prognosis.
XX
PS   Example 5; Page 27; 111pp; Japanese.
XX
CC   The invention comprises nucleic acids that show increased expression in
CC   human neuroblastomas with poor prognosis over those with a good
CC   prognosis. The nucleic acids of the invention are useful as a tool for
CC   distinguishing neuroblastomas with a favourable prognosis (spontaneous
CC   regression) from neuroblastomas with a poor prognosis (high malignancy).
CC   The DNA sequences ABT32224 - ABT32571 represent oligonucleotides used in
CC   an example of the invention
XX
SQ   Sequence 20 BP; 2 A; 2 C; 8 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2311 AGCAATTTGTTGCTGCTTGT 2330
              |||| |||| ||||| | ||
Db          1 AGCAGTTTGGTGCTGTTGGT 20


RESULT 5156
AAL61847/c
ID   AAL61847 standard; DNA; 20 BP.
XX
AC   AAL61847;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Human ETBR-LP-2 antisense oligonucleotide ISIS #204273.
XX
KW   Human; G protein-coupled receptor; hyperproliferative disorder; GPR37L1;
KW   endothelin type b receptor-like protein-2; cerebral vascular disease;
KW   antisense; endothelin-binding receptor-like protein-2; atherosclerosis;
KW   cardiovascular disease; ETBR-LP-2; G-protein coupled receptor 37 like 1;
KW   acute proliferative nephropathy; ETBR-like protein 2; cancer; stroke;
KW   angiogenesis; hypertension; phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone; All cytidine residues
FT                   are 5-methylcytidines"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
XX
PN   WO2003050244-A2.
XX
PD   19-JUN-2003.
XX
PF   04-DEC-2002; 2002WO-US038520.
XX
PR   06-DEC-2001; 2001US-00003126.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Freier SM;
XX
DR   WPI; 2003-558997/52.
XX
```

```
PT   New oligonucleotides which bind the nucleic acid encoding the G protein
PT   coupled receptor ETBR-LP-2 (endothelin type b receptor-like protein-2
PT   receptor), useful for treating e.g. cancer and cardiovascular diseases.
XX
PS   Example 15; Page 80; 106pp; English.
XX
CC   The invention relates to antisense compounds targetted to the nucleic
CC   acid encoding the G protein-coupled receptor ETBR-LP-2 (endothelin type b
CC   receptor-like protein-2) to inhibit its expression. ETBR-LP-2 is also
CC   known as endothelin-binding receptor-like protein-2, ETBR-like protein 2
CC   and G-protein coupled receptor 37 like 1 (GPR37L1). Antisense compounds
CC   of the invention are useful for treating hyperproliferative disorders
CC   (especially cancer) and cardiovascular diseases especially angiogenesis,
CC   atherosclerosis, hypertension, cerebral vascular disease, stroke and
CC   acute proliferative nephropathy. The present sequence is an antisense
CC   oligonucleotide targetted to human ETBR-LP-2 DNA
XX
SQ   Sequence 20 BP; 4 A; 5 C; 9 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        250 GGTCCCCCACCTCTCCTCCG 269
              |||  || |||||||| |||
Db         20 GGTGGCCTACCTCTCCACCG 1


RESULT 5157
ACD99656/c
ID   ACD99656 standard; DNA; 20 BP.
XX
AC   ACD99656;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #342.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 18; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1543 AGAGTAGGGAAGGAACAGGA 1562
              ||| |  ||||||||| |||
Db         20 AGACTGAGGAAGGAACTGGA 1


RESULT 5158
ACH03114
ID   ACH03114 standard; DNA; 20 BP.
XX
AC   ACH03114;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #749.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 29; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20


RESULT 5159
ACD99816/c
```

```
ID   ACD99816 standard; DNA; 20 BP.
XX
AC   ACD99816;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #502.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 22; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1


RESULT 5160
ACH03191/c
ID   ACH03191 standard; DNA; 20 BP.
XX
AC   ACH03191;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #826.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 31; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1


RESULT 5161
ACF06256
ID   ACF06256 standard; DNA; 20 BP.
XX
AC   ACF06256;
XX
DT   06-OCT-2003  (first entry)
XX
DE   Human NOV4 probe SEQ ID NO:34.
XX
KW   Human; NOVX; cytostatic; antidiabetic; neuroprotective; antiparkinsonian;
KW   anorectic; gene therapy; vaccine; cancer; neurodegenerative disorder;
KW   Parkinson's disease; metabolic disorder; diabetes; obesity;
KW   tissue typing; probe; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO2003052061-A2.
XX
PD   26-JUN-2003.
XX
PF   03-DEC-2002; 2002WO-US038821.
XX
PR   17-DEC-2001; 2001US-0341477P.
PR   17-DEC-2001; 2001US-0341540P.
PR   20-DEC-2001; 2001US-0342592P.
PR   31-DEC-2001; 2001US-0344903P.
PR   17-APR-2002; 2002US-0373288P.
PR   15-MAY-2002; 2002US-0380981P.
PR   17-MAY-2002; 2002US-0381495P.
PR   28-MAY-2002; 2002US-0383744P.
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PR 29-MAY-2002; 2002US-0384024P.
PR 07-AUG-2002; 2002US-0401788P.
PR 26-AUG-2002; 2002US-0406353P.
PR 31-OCT-2002; 2002US-0422756P.
PR 02-DEC-2002; 2002US-00307928.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Alsobrook JP, Anderson DW, Boldog FL, Burgess CE, Catterton E;
PI Edinger SR, Gorman L, Guo X, Ji W, Kekuda R, Li L, Patturajan M;
PI Rieger DK, Shenoy SG, Spytek KA, Vernet CAM, Voss EZ, Zhong M;
XX
DR WPI; 2003-533005/50.
XX
PT New NOVX polypeptide, useful for preparing a composition for treating or
PT preventing e.g. cancer, neurodegenerative disorders such as Parkinson's
PT disease, or metabolic disorders such as diabetes or obesity, or for
PT tissue typing.
XX
PS Example C; Page 159; 190pp; English.
XX
CC ACF06233 to ACF06242 encode the human NOVX proteins given in ABR83334 to
CC ABR83343, designated NOV1a, NOV2a, NOV3a, NOV4a, NOV4b, NOV5a, NOV6a,
CC NOV7a, NOV8a and NOV9a respectively. NOVX sequences can have cytostatic,
CC antidiabetic, neuroprotective, antiparkinsonian and anorectic activities,
CC and can be used in vaccines and gene therapy. The NOVX polypeptides can
CC be used for preparing a composition for treating or preventing a
CC pathology associated with the NOVX-polypeptides e.g. cancer,
CC neurodegenerative disorders such as Parkinson's disease, or metabolic
CC disorders such as diabetes or obesity, or for tissue typing. The present
CC sequence represents a probe for human NOV4, which is used in an example
CC from the present invention
XX
SQ Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 606 ACCTGCTGCTGCCCCACGCA 625
||||||||| | |||| ||
Db 1 ACCTGCTGCAGGGCCACTCA 20

RESULT 5162
ABT43815/c
ID ABT43815 standard; DNA; 20 BP.
XX
AC ABT43815;
XX
DT 16-OCT-2003 (first entry)
XX
DE Human PIP5KIa antisense oligonucleotide Seq ID67.
XX
KW Human; phosphatidylinositol-4-phosphate 5-kinase Ialpha; PIP5KIalpha;
KW antiinflammatory; antitumour; cytostatic; gene therapy; tumour;
KW antisense oligonucleotide; hyperproliferative disorder;
KW inflammatory disorder; infection; inflammation; 2'-methoxyethyl wing;
KW 2'-MOE wing; phosphorothioate backbone; ss.
XX
OS Homo sapiens.
XX
PN WO2003050309-A1.
XX
PD 19-JUN-2003.
XX
PF 04-DEC-2002; 2002WO-US038615.
XX
PR 06-DEC-2001; 2001US-00003354.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Freier SM;
XX
DR WPI; 2003-627257/59.
XX
PT New antisense compound useful for treating diseases such as
PT hyperproliferative or inflammatory disorders, hybridizes and inhibits
PT nucleic acid encoding phosphatidylinositol-4-phosphate 5-kinase, I alpha.
XX
PS Claim 3; Page 83; 117pp; English.
XX
CC This invention relates to the novel antisense compounds, particularly
CC antisense oligonucleotides, for the modulation of phosphatidylinositol-4-
CC phosphate 5-kinase Ialpha (PIP5KIa) expression. The oligonucleotides of
CC the invention may have antiinflammatory, antitumour or cytostatic
CC activities through use in a gene therapy method. As a result the
CC antisense oligonucleotides may be of use for the treatment of an animal
CC having a disease associated with PIP5KIa such as a hyperproliferative or
CC inflammatory disorder through inhibition of PIP5KIa expression. The
CC oligonucleotides of the invention may also be used prophylactically to
CC prevent or delay infection, inflammation or tumour formation. They may
CC also be useful for diagnostics, therapeutics, prevention, as research
CC reagents and kits or for distinguishing functions of various members of a
CC biological pathway. The present sequence is that of an antisense
CC oligonucleotide of the invention. The oligonucleotide is a chimeric
CC phosphorothioate oligonucleotide which has five nucleotide 2'-
CC methoxyethyl (2'-MOE) wings with a ten nucleotide deoxynucleotide gap.
CC The oligonucleotide backbone is phosphorothioate throughout
XX
SQ Sequence 20 BP; 7 A; 1 C; 8 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2620 AATAACTTTGTCTCGTTCCT 2639
|| ||| || |||| |||||
Db 20 AAGAACCTTCTCTCCTTCCT 1

RESULT 5163
ACF05559
ID ACF05559 standard; DNA; 20 BP.
XX
AC ACF05559;
XX
DT 06-NOV-2003 (first entry)
XX
DE Human secreted protein IPAAA24020 forward PCR primer CP1.
XX
KW INSP033; IPAAA24020; human; cytokine; cytostatic; antiinflammatory;
KW immunosuppressive; cardiant; antibacterial; virucide; vulnerary;
KW antipsoriatic; antiarthritic; immunomodulator; cerebroprotective;
KW hepatotropic; anti-HIV; nootropic; antiarteriosclerotic; osteopathic;
KW gene therapy; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003055912-A2.
XX
PD 10-JUL-2003.
XX
PF 23-DEC-2002; 2002WO-GB005890.
XX
PR 21-DEC-2001; 2001GB-00030720.
XX
PA (ARES-) ARES TRADING SA.
XX
PI Fagan RJ, Phelps CB, Gutteridge A, Power C;
XX
DR WPI; 2003-569431/53.
XX
PT New polypeptide, useful for the manufacture of a medicament for treating
PT disease, e.g., cell proliferative, autoimmune/inflammatory,
PT cardiovascular or neurological disorders.

```
XX
PS   Example 2; Page 64; 117pp; English.
XX
CC   The present sequence is that of forward primer CP1 which, with reverse
CC   primer CP2 (see ACF05560), was used in the PCR amplification of cDNA (see
CC   ACF05540) encoding INSP033 (also called IPAAA24020, see ABR62608), a
CC   novel human secreted protein that is a member of the four helical bundle
CC   cytokine family. The invention relates to novel secreted proteins such as
CC   INSP033, and to the use of the proteins and the nucleic acids encoding
CC   them in the diagnosis, prevention and treatment of e.g. cell
CC   proliferative, autoimmune/inflammatory, cardiovascular, neurological,
CC   developmental and metabolic disorders, infections and other pathological
CC   conditions
XX
SQ   Sequence 20 BP; 4 A; 8 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2322 GCTGCTTGTCACCCCCAAGT 2341
              ||||||| ||  | ||||||
Db          1 GCTGCTTCTCCACACCAAGT 20


RESULT 5164
ACD05204
ID   ACD05204 standard; DNA; 20 BP.
XX
AC   ACD05204;
XX
DT   05-AUG-2003  (first entry)
XX
DE   Tumour necrosis factor alpha antisense oligonucleotide #207.
XX
KW   Tumour necrosis factor alpha; TNF-alpha; antiinflammatory; antirheumatic;
KW   antiarthritic; antidiabetic; dermatological; hepatotropic; antiasthmatic;
KW   inflammatory disorder; inflammatory bowel disease; Crohn's disease;
KW   colitis; rheumatoid arthritis; diabetes; pancreatitis;
KW   multiple sclerosis; atopic dermatitis; asthma; hepatitis;
KW   antisense technology; ss.
XX
OS   Synthetic.
XX
PN   US2003022848-A1.
XX
PD   30-JAN-2003.
XX
PF   02-APR-2001; 2001US-00824322.
XX
PR   05-OCT-1998;   98US-00166186.
PR   18-MAY-1999;   99US-00313932.
XX
PA   (BAKE/) BAKER B F.
PA   (BENN/) BENNETT C F.
PA   (BUTL/) BUTLER M M.
PA   (SHAN/) SHANAHAN W R.
XX
PI   Baker BF,  Bennett CF,  Butler MM,  Shanahan WR;
XX
DR   WPI; 2003-447433/42.
XX
PT   Treating inflammatory disorders such as inflammatory bowel disease,
PT   Crohn's disease or rheumatoid arthritis, in a subject, by administering
PT   oligonucleotide which inhibits expression of human tumor necrosis factor
PT   alpha.
XX
PS   Example 22; Page 37; 142pp; English.
XX
CC   The invention describes a method of treating an inflammatory disorder in
CC   an individual, comprising administering to the individual an
CC   oligonucleotide upto 30 nucleotides in length complementary to a nucleic
CC   acid molecule encoding human tumor necrosis factor (TNF)-alpha. The
CC   method is useful for treating an inflammatory disorder such as
CC   inflammatory bowel disease, Crohn's disease, colitis or rheumatoid
CC   arthritis, in an individual. The method is also useful for treating
CC   diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma,
CC   and hepatitis in an individual. This sequence represents an antisense
CC   oligonucleotide used to modulate expression of tumour necrosis factor
CC   alpha (TNF-alpha)
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1453 CCCTGGAGACCAGAGTCCAG 1472
              ||||||   ||||| |||||
Db          1 CCCTGGTCTCCAGATTCCAG 20


RESULT 5165
AAL61587/c
ID   AAL61587 standard; DNA; 20 BP.
XX
AC   AAL61587;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Human inhibitor-kappa B-R antisense oligonucleotide, ISIS #130512.
XX
KW   Human; inhibitor-kappa B-R; I-kappaBR; IKBR; I-kappa-B-related; NFKBIL2;
KW   ikappab r; antisense; immune response; infection; inflammation; therapy;
KW   tumour; prophylaxis; phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone; All cytidine residues
FT                   are 5-methylcytidines"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
XX
PN   WO2003042360-A2.
XX
PD   22-MAY-2003.
XX
PF   05-NOV-2002; 2002WO-US035597.
XX
PR   13-NOV-2001; 2001US-00993731.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Watt AT;
XX
DR   WPI; 2003-468635/44.
XX
PT   New antisense oligonucleotides targeted to nucleic acids encoding
PT   inhibitor-kappa B-R, useful for diagnosing or treating diseases
PT   associated with expression of inhibitor-kappa B-R, e.g., a heightened
PT   immune response or infection.
XX
PS   Claim 3; Page 75; 108pp; English.
XX
CC   The invention relates to antisense compounds targetted to a nucleic acid
```

```
CC   molecule encoding human inhibitor-kappa B-R (also known as I-kappaBR,
CC   IKBR, I-kappa-B-related, ikappab r, nuclear factor of kappa light
CC   polypeptides gene enhancer in B-cells inhibitor-like 2 and NFKBIL2) to
CC   inhibit its expression. Antisense compounds of the invention are useful
CC   for treating diseases or conditions associated with the expression of
CC   inhibitor-kappa B-R such as a heightened immune response involving
CC   increased cytokine expression, or a result of infection (e.g. bacterial,
CC   viral or parasitic). They are useful for diagnostics, therapeutics,
CC   prophylaxis e.g. to prevent or delay infection, inflammation or tumour
CC   formation, as research reagents and kits and in distinguishing between
CC   functions of various members of a biological pathway. They are also
CC   useful in antisense therapy. The present sequence is an oligonucleotide
CC   targetted to human inhibitor-kappa B-R DNA
XX
SQ   Sequence 20 BP; 4 A; 8 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1081 AGTAGAAGGTGAAGCTGTTC 1100
              || ||  |||||||||||  |
Db         20 AGCAGTGGGTGAAGCTGTAC 1

RESULT 5166
ADB93133
ID   ADB93133 standard; DNA; 20 BP.
XX
AC   ADB93133;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human Type II collagen gene - PCR primer #2.
XX
KW   cell therapy; mesenchymal stem cell; mesenchymal progenitor cell;
KW   umbilical cord blood; tissue transplantation; mesenchymal tissues; PCR;
KW   type II collagen; human; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003070922-A1.
XX
PD   28-AUG-2003.
XX
PF   19-FEB-2003; 2003WO-KR000339.
XX
PR   19-FEB-2002; 2002KR-00008639.
XX
PA   (MEDI-) MEDIPOST CO LTD.
XX
PI   Ha C,  Yang Y,  Yang S;
XX
DR   WPI; 2003-646625/61.
XX
PT   Isolating and cultivating mesenchymal stem/progenitor cells from
PT   umbilical cord blood, useful for tissue transplantation, comprises
PT   reacting the cells with antibodies to mesenchymal stem/progenitor cell-
PT   specific antigens.
XX
PS   Example 2; Page 17; 38pp; English.
XX
CC   The invention comprises a method for isolating and cultivating
CC   mesenchymal stem/progenitor cells from umbilical cord blood. The method
CC   of the invention is useful in mass production of mesenchymal
CC   stem/progenitor cells. The obtained cells may be used in tissue
CC   transplantation or in the renewal and treatment of injured mesenchymal
CC   tissues. The present DNA sequence represents a PCR primer that was used
CC   in an example of the invention.
XX
SQ   Sequence 20 BP; 4 A; 10 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        665 CTCCACGACATGCCTCACCA 684
              || ||| || || |||||||
Db          1 CTTCACCACCTGTCTCACCA 20

RESULT 5167
ADB37152/c
ID   ADB37152 standard; DNA; 20 BP.
XX
AC   ADB37152;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #766.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 17; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              |||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1

RESULT 5168
ADB36727/c
ID   ADB36727 standard; DNA; 20 BP.
XX
AC   ADB36727;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #341.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
```

```
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 10; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1543 AGAGTAGGGAAGGAACAGGA 1562
              ||| |  |||||||||| |||
Db         20 AGACTGAGGAAGGAACTGGA 1


RESULT 5169
ADB36898/c
ID   ADB36898 standard; DNA; 20 BP.
XX
AC   ADB36898;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #512.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 12; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1776 TTTTTTGAACCCCATTCTTT 1795
              ||||||||||  |||  |||
Db         20 TTTTTTGAACGTCATGTTTT 1


RESULT 5170
ADB37078
ID   ADB37078 standard; DNA; 20 BP.
XX
AC   ADB37078;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #692.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 16; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
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Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20


RESULT 5171
ADC23725
ID   ADC23725 standard; DNA; 20 BP.
XX
AC   ADC23725;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Antisense PCR primer OL485 used to clone human HDAC9.
XX
KW   human; ss; histone deacetylase; HDAC; OL485; chromatin; gene therapy;
KW   cytostatic; cell proliferative; apoptotic; cell differentiation disease;
KW   lymphoma; melanoma; polycythaemia rubra vera; essential thrombocythaemia;
KW   myeloid metaplasia; PCR; primer; HDAC9.
XX
OS   Homo sapiens.
XX
PN   WO2002102984-A2.
XX
PD   27-DEC-2002.
XX
PF   14-JUN-2002; 2002WO-US019051.
XX
PR   14-JUN-2001; 2001US-0298173P.
PR   10-AUG-2001; 2001US-0311686P.
PR   04-SEP-2001; 2001US-0316995P.
XX
PA   (SLOK ) SLOAN KETTERING INST CANCER RES.
XX
PI   Richon V,  Zhou X,  Rifkind RA,  Marks PA;
XX
DR   WPI; 2003-167506/16.
XX
PT   New histone deacetylase polypeptides and polynucleotides, useful for
PT   treating or preventing a cell proliferative disease, an apoptotic
PT   disease, or a cell differentiation disease , e.g. cancers such as
PT   lymphoma, leukemia or melanoma.
XX
PS   Example; SEQ ID NO 19; 312pp; English.
XX
CC   This invention relates to a novel isolated histone deacetylase
CC   polypeptide (HDAC), and recombinant variants thereof. Specifically, it
CC   refers to HDAC9, which catalyses the removal of the acetyl group from the
CC   lysine residues of the N-terminal tails of nucleosomal core histones
CC   resulting in a more compact chromatin structure, a configuration
CC   associated with transcriptional repression. The present invention
CC   describes screening for candidate compounds that modulate this repression
CC   activity such as antibodies, agonists and antagonists. Furthermore, by
CC   gene therapy, these cytostatic compounds can be used to treat or prevent
CC   cell proliferative, apoptotic or cell differentiation diseases such as
CC   lymphoma, melanoma, polycythaemia rubra vera, essential thrombocythaemia
CC   or angiogenic myeloid metaplasia. This oligonucleotide sequence is the
CC   antisense PCR primer OL485, used to clone human HDAC9 of the invention.
XX
SQ   Sequence 20 BP; 5 A; 2 C; 8 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2548 AATTAAGAGGATGCTGGGCT 2567
              |||  | ||||||||||| |
Db          1 AATGTACAGGATGCTGGGGT 20


RESULT 5172
ADC13699/c
ID   ADC13699 standard; DNA; 20 BP.
XX
AC   ADC13699;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human NOVX forward primer, SEQ ID No 184.
XX
KW   NOVX; FADD interacting protein; ATPase; H+ Transporting; Lysosomal;
KW   FGF 17; Single Pass Transmembrane; Beta-Ketoacyl Synthase; Neuralin 2;
KW   Glutamate Receptor Interacting Protein 2; ChR-Methyltransferase;
KW   NP25 Variant; GTPase-Activating Protein; ELKS; Sim2; RhoGAP;
KW   Phospholipase; Scavenger Receptor Domain Containing Protein;
KW   Metallothionein IA; NOGO receptor; FYVE; NOELIN;
KW   Cyclin Regulatory Subunit; Tetratrico Peptide Repeat Protein;
KW   Immunoglobulin Domain Containing Protein; PA Domain Containing Protein;
KW   Phenylalanine; Histidine Ammonia-Lyase; Cellular Retinaldehyde-Binding;
KW   Glutamine Repeat Containing Protein; TNF Receptor Associated Factor2;
KW   Vacuolar Protein Sorting Homologue R-VPS33A;
KW   Bola Domain Containing Protein; Neurotrophin Receptor;
KW   RAL Guanine Nucleotide Dissociation Stimulator; Armadillo/Beta-Catenin;
KW   Metalloprotease; T10 Ser/Thr-rich; Ring finger-like; cytostatic;
KW   gene therapy; vaccine; cancer; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003004617-A2.
XX
PD   16-JAN-2003.
XX
PF   03-JUL-2002; 2002WO-US021359.
XX
PR   05-JUL-2001; 2001US-0303046P.
PR   09-JUL-2001; 2001US-0303828P.
PR   11-JUL-2001; 2001US-0304502P.
PR   12-JUL-2001; 2001US-0305011P.
PR   13-JUL-2001; 2001US-0305262P.
PR   17-JUL-2001; 2001US-0306085P.
PR   24-JUL-2001; 2001US-0307536P.
PR   27-JUL-2001; 2001US-0308228P.
PR   30-JUL-2001; 2001US-0308877P.
PR   01-AUG-2001; 2001US-0309255P.
PR   10-AUG-2001; 2001US-0311753P.
PR   19-SEP-2001; 2001US-0323449P.
PR   22-FEB-2002; 2002US-0358932P.
PR   05-MAR-2002; 2002US-0361765P.
PR   02-JUL-2002; 2002US-00188248.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Patturajan M,  Gerlach VL,  Anderson DW,  Taupier RJ,  Zerhusen BD;
PI   Guo X,  Casman SJ,  Hjalt T,  Miller CE,  Kekuda R,  Shimkets RA;
PI   Malyankar UM,  Zhong M,  Padigaru M,  Li L,  Shenoy SG,  Gorman L;
PI   Edinger SR;
XX
DR   WPI; 2003-201550/19.
XX
PT   New NOVX polypeptide, useful for preparing a composition for treating or
PT   preventing cancer.
XX
PS   Example 37; Page 313; 393pp; English.
XX
CC   The invention relates to a novel isolated NOVX polypeptide comprising: a
CC   sequence of 57-1149 amino acids as defined in the specification, or its
CC   mature form; a sequence that is at least 95% identical to the 57-1149
CC   amino acid polypeptide; or a sequence comprising one or more conservative
CC   substitutions in the 57-1149 amino acid polypeptide. The NOVX proteins of
CC   the invention include the following protein families: FADD interacting
CC   protein-like, ATPase, H+ Transporting, Lysosomal (vacuolar Proton Pump)-
CC   like, FGF 17-like, Single Pass Transmembrane-like, Beta-Ketoacyl Synthase
CC   -like, Neuralin 2-like, Glutamate Receptor Interacting Protein 2-like,
CC   ChR-Methyltransferase-like, NP25 Variant-like, GTPase-Activating Protein-
CC   like, ELKS-like, Sim2-like, RhoGAP-like, Phospholipase-like, Scavenger
CC   Receptor Domain Containing Protein-like, Metallothionein IA-like, NOGO
```

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CC   receptor-like, FYVE-protein, NOELIN-like, Cyclin Regulatory Subunit-like,
CC   Tetratrico Peptide Repeat Protein-like, Immunoglobulin Domain Containing
CC   Protein-like, PA Domain Containing Protein-like, Phenylalanine and
CC   Histidine Ammonia-Lyase-like, Cellular Retinaldehyde-Binding-like,
CC   Glutamine Repeat Containing Protein-like, TNF Receptor Associated Factor2
CC   -like, Vacuolar Protein Sorting Homologue R-VPS33A, Bola Domain
CC   Containing Protein-like, Neurotrophin Receptor-like, RAL Guanine
CC   Nucleotide Dissociation Stimulator-like, Armadillo/Beta-Catenin-like,
CC   Metalloprotease-like, T10 Ser/Thr-rich-like, and Ring finger-like
CC   protein. The NOVX proteins and the encoding polynucleotides have
CC   cytostatic activity and can be used in gene therapy or a vaccine. The
CC   NOVX polypeptide is useful for preparing a composition for treating or
CC   preventing cancer. This polynucleotide sequence represents a forward
CC   primer of a gene encoding a NOVX protein of the invention.
XX
SQ   Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1082 GTAGAAGGTGAAGCTGTTCA 1101
              | | ||||||||| ||| |||
Db         20 GGACAAGGTGAATCTGCTCA 1

RESULT 5173
ADC53902/c
ID   ADC53902 standard; DNA; 20 BP.
XX
AC   ADC53902;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Pediococcus detection PCR primer #2.
XX
KW   Pediococcus bacteria detection; spacer region; 16S rRNA; 23S rRNA;
KW   beer brewery; fermented-food; ss; PCR; primer.
XX
OS   Pediococcus acidilactici.
OS   Pediococcus pentosaceus.
XX
PN   JP2003038181-A.
XX
PD   12-FEB-2003.
XX
PF   01-JUN-2001; 2001JP-00165989.
XX
PR   01-JUN-2001; 2001JP-00165989.
XX
PA   (ASAK ) ASAHI BREWERIES LTD.
XX
DR   WPI; 2003-590691/56.
XX
PT   Oligonucleotide for detecting bacteria, comprises sequence of spacer
PT   region between genes encoding 16S rRNA and 23S rRNA of Pediococcus
PT   dextrinicus, Pediococcus parvulus, Pediococcus acidilactici, Pediococcus
PT   pentosaceus.
XX
PS   Claim 21; SEQ ID NO 18; 18pp; Japanese.
XX
CC   The invention comprises oligonucleotides for detecting bacteria, the
CC   oligonucleotides contain a gene sequence of a spacer region between genes
CC   encoding 16S rRNA and 23S rRNA of Pediococcus dextrinicus, P. parvulus,
CC   P. acidilactici or P. pentosaceus. The oligonucleotides of the invention
CC   are useful as primers for detecting P. dextrinicus, P. parvulus, P.
CC   acidilactici and P. pentosaceus, in beer brewery and in fermented-food
CC   preparation process. The present DNA sequence represents a detection PCR
CC   primer of the invention.
XX
SQ   Sequence 20 BP; 3 A; 6 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1734 CAGAAGGTGACAAGTACTGG 1753
              |||||| || ||||  ||||
Db         20 CAGAAGATGTCAAGACCTGG 1

RESULT 5174
AAD60260
ID   AAD60260 standard; DNA; 20 BP.
XX
AC   AAD60260;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Oligonucleotide 1638 used for activating dendritic cells.
XX
KW   Dendritic cell activation; cancer immunotherapy; infectious disease;
KW   allergy; cell therapy; ss.
XX
OS   Unidentified.
XX
PN   US2003100527-A1.
XX
PD   29-MAY-2003.
XX
PF   03-JUN-2002; 2002US-00161229.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
PR   30-OCT-1996;   96US-00738652.
PR   30-OCT-1997;   97US-00960774.
PR   13-NOV-1998;   98US-00191170.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Hartmann G;
XX
DR   WPI; 2003-708674/67.
XX
PT   Activating a dendritic cell useful for treating cancer, infectious
PT   diseases or allergies, comprises contacting the dendritic cell with an
PT   amount of an isolated nucleic acid that contains at least one
PT   unmethylated CpG dinucleotide.
XX
PS   Disclosure; Page 11; 51pp; English.
XX
CC   The invention relates to a method of activating a dendritic cell. The
CC   method involves contacting the dendritic cell with an isolated nucleic
CC   acid containing at least one unmethylated CpG dinucleotide, where the
CC   nucleic acid is about 8-80 bases in length, in an amount that activates
CC   the dendritic cell. The compositions and methods of the invention are
CC   useful for cancer immunotherapy, or for treating an infectious disease
CC   (e.g. viral, bacterial or fungal infections) or allergy. The invention is
CC   useful in cell therapy. The present sequence is an oligonucleotide used
CC   for activating dendritic cells
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1966 AATATTTACCTTGAAAAAAA 1985
              || ||  || ||||||||||
Db          1 AAAATCAACGTTGAAAAAAA 20

RESULT 5175
ADD20133
ID   ADD20133 standard; DNA; 20 BP.
XX
```

```
AC   ADD20133;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Oreochromis niloticus microsatellite primer  SEQ ID NO:768.
XX
KW   single nucleotide polymorphism; SNP; fish; Salmo salar;
KW   Orechromis niloticus; Atlantic halibut; microsatellite; cod;
KW   polymorphic site; seabass; salmonidae; Tilapia; rainbow trout; halibut;
KW   detection; primer; ss.
XX
OS   Synthetic.
OS   Oreochromis niloticus.
XX
PN   WO2003060160-A2.
XX
PD   24-JUL-2003.
XX
PF   17-JAN-2003; 2003WO-IB000112.
XX
PR   18-JAN-2002; 2002US-0349950P.
PR   16-AUG-2002; 2002US-0404200P.
XX
PA   (GENO-) GENOMAR ASA.
XX
PI   Lie O,  Slettan A,  Hoyum M,  Lingaas F;
XX
DR   WPI; 2003-627388/59.
XX
PT   Novel isolated nucleic acid molecule comprising single nucleotide
PT   polymorphism associated with fish, useful for forming PCR primers which
PT   are used for detecting single nucleotide polymorphisms in fish nucleic
PT   acids.
XX
PS   Claim 18; SEQ ID NO 768; 233pp; English.
XX
CC   The present invention describes an isolated nucleic acid (I) comprising a
CC   single nucleotide polymorphism (SNP) chosen from: (i) a nucleic acid of
CC   Salmo salar SNPs, Oreochromis niloticus SNPs or Atlantic halibut SNPs;
CC   and (ii) a nucleic acid having nucleotide sequence that hybridises to
CC   (i), or its complement under highly stringent hybridisation conditions.
CC   Also described: (1) an isolated oligonucleotide (II) comprising at least
CC   17 contiguous nucleotides of a nucleotide sequence of S. salar SNPs, O.
CC   niloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, cod
CC   polymorphic sites and seabass polymorphic sites, or their complement; (2)
CC   a primer pair (III) suitable for use in PCR, comprising two (II) capable
CC   of amplifying a nucleotide sequence chosen from S. salar SNPs and, O.
CC   niloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, cod
CC   polymorphic sites and seabass polymorphic sites; and determining (M1) the
CC   origin of fish sample comprising providing a parentage genotype database
CC   comprising a collection of candidate parent genotypes, where each of the
CC   candidate parent genotype represents a distinct origin, and comparing a
CC   sample genotype to the parentage genotype database, where a match between
CC   the sample genotype and one of the candidate parent genotype identifies
CC   to the origin of the sample. (M1) is useful for determining the origin of
CC   a fish sample such as family salmonidae, S. salar, Tilapia, O. niloticus,
CC   rainbow trout, halibut, seabass and Atlantic cod. (II) is useful for
CC   detecting nucleic acid molecule comprising SNP in a sample, which
CC   involves contacting the sample containing nucleic acids with one or more
CC   (II) derived from nucleotide sequence of S. salar SNPs and O. niloticus
CC   SNPs, and identifying nucleic acid that hybridises to (II). (II) is
CC   useful for detecting nucleic acid molecule comprising a polymorphic
CC   sequence in a sample, comprising contacting the sample containing nucleic
CC   acids with one or more (II) which is derived from O. niloticus
CC   microsatellite, O. niloticus SNPs, Atlantic halibut SNPs, cod polymorphic
CC   sites or seabass polymorphic sites, and identifying a nucleic acid that
CC   hybridises to (II). (III) is useful for detecting nucleic acid molecule
CC   comprising a microsatellite sequence in sample. The present sequence is
CC   used in the exemplification of the present invention.
XX
SQ   Sequence 20 BP; 8 A; 2 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1010 TTGGACAAGATCGGGTTGAA 1029
              |||||||| |  ||| ||||
Db          1 TTGGACAACAATGGGATGAA 20


RESULT 5176
ADD21650/c
ID   ADD21650 standard; DNA; 20 BP.
XX
AC   ADD21650;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human mdm2 antisense oligonucleotide #213.
XX
KW   antisense oligonucleotide; human; mdm2; hyperproliferation;
KW   hyperproliferative disorder; cancer; psoriasis; fibrosis;
KW   atherosclerosis; restenosis; apoptosis modulation; p21; ss;
KW   2'-methoxyethoxy-residue; phosphorothioate backbone.
XX
OS   Homo sapiens.
XX
PN   WO2003048315-A2.
XX
PD   12-JUN-2003.
XX
PF   02-DEC-2002; 2002WO-US038281.
XX
PR   04-DEC-2001; 2001US-00005344.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Miraglia LJ,  Nero PS,  Graham MJ,  Monia BP,  Koller E,  Chiang MY;
PI   Manoharan M;
XX
DR   WPI; 2003-577263/54.
XX
PT   Novel antisense compound targeted to 5' untranslated region, coding
PT   region, or intron:exon junction of nucleic acid molecule encoding mdm2,
PT   useful for treating e.g. cancer, psoriasis or restenosis by inhibiting
PT   mdm2 expression.
XX
PS   Claim 4; SEQ ID NO 215; 289pp; English.
XX
CC   The invention comprises antisense oligonucleotides which are targeted to
CC   the human mdm2 gene. The antisense oligonucleotides of the invention are
CC   useful for reducing hyperproliferation of human cells. The antisense
CC   oligonucleotides are also useful for treating: hyperproliferative
CC   disorders (e.g. cancer), psoriasis, fibrosis, atherosclerosis, or
CC   restenosis. The antisense oligonucleotides are also useful for modulating
CC   apoptosis, and for increasing expression of p21. The present DNA sequence
CC   represents a human mdm2 gene antisense oligonucleotide of the invention.
CC   The present sequence contains 2'-methoxyethoxy-residues and has a
CC   phosphorothioate backbone.
XX
SQ   Sequence 20 BP; 8 A; 1 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2520 TTTATTCATATATATACAGG 2539
              |||||||| ||||||  | |
Db         20 TTTATTCACATATATCAAAG 1


RESULT 5177
ADD68563/c
ID   ADD68563 standard; DNA; 20 BP.
XX
```

```
AC   ADD68563;
XX
DT   15-JAN-2004  (first entry)
XX
DE   SNP typing-related PCR primer - SEQ ID 120.
XX
KW   single nucleotide polymorphism; SNP; typing; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   JP2002300894-A.
XX
PD   15-OCT-2002.
XX
PF   29-JAN-2002; 2002JP-00019752.
XX
PR   01-FEB-2001; 2001JP-00025700.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
XX
DR   WPI; 2003-397221/38.
XX
PT   A typing method for single nucleotide polymorphism (SNP) of several
PT   hundred thousands of SNP sites with comparatively a small amount of
PT   genome DNA.
XX
PS   Example 2; SEQ ID NO 120; 45pp; Japanese.
XX
CC   The invention relates to a novel method for typing a single nucleotide
CC   polymorphism (SNP) using a small amount of genomic DNA comprising
CC   simultaneous amplification of plural base sequences containing one or
CC   more SNP sites and differentiation of the bases within the SNP sites. The
CC   method of the invention may be useful for typing several hundred thousand
CC   SNP sites using only a comparatively small amount of genomic DNA. The
CC   current sequence is that of the SNP typing-related PCR primer of the
CC   invention.
XX
SQ   Sequence 20 BP; 7 A; 4 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2094 CGTGTTCAAACGGGGGCCTT 2113
              |||  |||||| | ||||||
Db         20 CGTTCTCAAACTGTGGCCTT 1


RESULT 5178
ADD68537
ID   ADD68537 standard; DNA; 20 BP.
XX
AC   ADD68537;
XX
DT   15-JAN-2004  (first entry)
XX
DE   SNP typing-related PCR primer - SEQ ID 94.
XX
KW   single nucleotide polymorphism; SNP; typing; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   JP2002300894-A.
XX
PD   15-OCT-2002.
XX
PF   29-JAN-2002; 2002JP-00019752.
XX
PR   01-FEB-2001; 2001JP-00025700.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
XX
DR   WPI; 2003-397221/38.
XX
PT   A typing method for single nucleotide polymorphism (SNP) of several
PT   hundred thousands of SNP sites with comparatively a small amount of
PT   genome DNA.
XX
PS   Example 2; SEQ ID NO 94; 45pp; Japanese.
XX
CC   The invention relates to a novel method for typing a single nucleotide
CC   polymorphism (SNP) using a small amount of genomic DNA comprising
CC   simultaneous amplification of plural base sequences containing one or
CC   more SNP sites and differentiation of the bases within the SNP sites. The
CC   method of the invention may be useful for typing several hundred thousand
CC   SNP sites using only a comparatively small amount of genomic DNA. The
CC   current sequence is that of the SNP typing-related PCR primer of the
CC   invention.
XX
SQ   Sequence 20 BP; 9 A; 5 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1197 AGATGGCAGCTAGGAAGAAC 1216
              |||  ||||| |||||| ||
Db          1 AGAACGCAGCAAGGAAGCAC 20


RESULT 5179
ADD56647/c
ID   ADD56647 standard; DNA; 20 BP.
XX
AC   ADD56647;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human gene expression analysis multiplex StaRT-PCR primer #167.
XX
KW   Gene expression; multiplex standardised reverse transcriptase-PCR;
KW   StaRT-PCR; high density oligonucleotide array; cDNA array;
KW   small biological sample; fine needle aspirate biopsy;
KW   laser captured microdissected material; human; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2003186246-A1.
XX
PD   02-OCT-2003.
XX
PF   28-MAR-2002; 2002US-00109349.
XX
PR   28-MAR-2002; 2002US-00109349.
XX
PA   (WILL/) WILLEY J C.
PA   (CRAW/) CRAWFORD E L.
XX
PI   Willey JC,  Crawford EL;
XX
DR   WPI; 2003-811730/76.
XX
PT   Direct comparison of numerical gene expression values between samples of
PT   genes comprises using multiplex standardized reverse transcription-
PT   polymerase chain reaction.
XX
PS   Example 1; SEQ ID NO 167; 59pp; English.
XX
CC   The present invention relates to a method for the direct comparison of
CC   numerical gene expression values between samples of genes. The method
CC   comprises amplifying cDNA in the presence of a competitive template
CC   mixture and primer pairs for several genes and then amplifying aliquots
CC   of the PCR products using a primer pair specific for each gene. The
CC   method of amplification is by multiplex standardised reverse
CC   transcriptase-polymerase chain reaction (StaRT-PCR). High density
CC   oligonucleotide or cDNA arrays are used to measure PCR products following
```

CC quantitative StaRT-PCR. The method is useful for the assessment of gene
CC expression in small biological samples such as fine needle aspirate
CC biopsies, and laser captured microdissected materials. The method allows
CC for the standardised measurement of hundreds of genes from the same
CC sample, which in prior art, could only be assessed for one gene. The
CC present sequence represents a multiplex StaRT-PCR primer which can be
CC used in the method of the present invention.
XX
SQ Sequence 20 BP; 6 A; 9 C; 4 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 633 TGGATGCCGCGGGCCTGGCC 652
||||||| || || |||||
Db 20 TGGATGCTGCTGGTGTGGCC 1

RESULT 5180
ADE28930
ID ADE28930 standard; DNA; 20 BP.
XX
AC ADE28930;
XX
DT 29-JAN-2004 (first entry)
XX
DE Forward Ag5892 RT-PCR primer used to amplify human NOV RNA.
XX
KW NOVX; antidiabetic; anorectic; cardiant; hypotensive;
KW antiarteriosclerotic; virucide; antibacterial; fungicide; protozoacide;
KW nootropic; neuroprotective; antiparkinsonian; anticonvulsant;
KW osteopathic; antiarthritic; antiinflammatory; dermatological;
KW antiasthmatic; antilipaemic; metabolic; diabetes; obesity; infectious;
KW anorexia; cancer; cardiovascular; hypertension; atherosclerosis;
KW neurodegenerative; Alzheimer's disease; Parkinson's; epilepsy; immune;
KW osteoarthritis; haemopoietic; inflammatory skin; asthma; dyslipidaemia;
KW neurogenesis; cell differentiation; proliferation; haemopoiesis;
KW wound healing; angiogenesis; gene therapy; chromosome mapping;
KW tissue typing; human; NOV; PCR; primer; ss; RT-PCR.
XX
OS Homo sapiens.
XX
PN WO2003040330-A2.
XX
PD 15-MAY-2003.
XX
PF 05-NOV-2002; 2002WO-US035536.
XX
PR 05-NOV-2001; 2001US-0338626P.
PR 05-DEC-2001; 2001US-0336600P.
PR 07-DEC-2001; 2001US-0338285P.
PR 12-DEC-2001; 2001US-0341346P.
PR 17-DEC-2001; 2001US-0341477P.
PR 17-DEC-2001; 2001US-0341540P.
PR 20-DEC-2001; 2001US-0342592P.
PR 27-DEC-2001; 2001US-0344297P.
PR 31-DEC-2001; 2001US-0344903P.
PR 17-APR-2002; 2002US-0373288P.
PR 15-MAY-2002; 2002US-0380981P.
PR 17-MAY-2002; 2002US-0381495P.
PR 28-MAY-2002; 2002US-0383534P.
PR 28-MAY-2002; 2002US-0383744P.
PR 29-MAY-2002; 2002US-0383829P.
PR 29-MAY-2002; 2002US-0384024P.
PR 07-AUG-2002; 2002US-0401788P.
PR 26-AUG-2002; 2002US-0406353P.
PR 31-OCT-2002; 2002US-00287971.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Alsobrook JP, Alvarez E, Anderson DW, Baron M, Boldog FL;
PI Burgess CE, Casman SJ, Chapoval A, Dhanabal M, Edinger SR, Eisen A;
PI Ellerman K, Ettenberg S, Gangolli EA, Gerlach VL, Gorman L;
PI Grosse WM, Guo X, Hackett C, Ji W, Kekuda R, Khramtsov NV;
PI Lepley DM, Li L, Macdougall JR, Malyankar UM, Mazur A, Mcqueeney K;
PI Mezes PS, Miller CE, Millet I, Mishra VS, Padigaru M, Patturajan M;
PI Pena CEA, Peyman JA, Rastelli L, Rieger DK, Shenoy SG, Shimkets RA;
PI Smithson G, Starling G, Spytek KA, Stone DJ, Tchernev VT, Twomlow N;
PI Vernet CAM, Zerhusen BD, Zhong M;
XX
DR WPI; 2003-441555/41.
XX
PT New isolated NOVX polypeptides and polynucleotides, useful for
PT preventing, diagnosing or treating NOVX-associated disorders, e.g.
PT osteoarthritis, obesity, atherosclerosis, cancer, Parkinson's disease,
PT asthma, or infections.
XX
PS Example C; SEQ ID NO 307; 447pp; English.
XX
CC The invention relates to a novel isolated NOVX polypeptide. The
CC polypeptide of the invention demonstrates, antidiabetic, anorectic,
CC cardiant, hypotensive, antiarteriosclerotic, virucide, antibacterial,
CC fungicide, protozoacide, nootropic, neuroprotective, antiparkinsonian,
CC anticonvulsant, osteopathic, antiarthritic, antiinflammatory,
CC dermatological, antiasthmatic and antilipaemic activities. The
CC polypeptides, nucleic acid molecules and antibodies may be useful for
CC treating or diagnosing diseases including metabolic disorders such as
CC diabetes and obesity, infectious diseases, anorexia, cancer,
CC cardiovascular diseases including hypertension and atherosclerosis,
CC neurodegenerative disorders such as Alzheimer's disease, Parkinson's
CC disease and epilepsy, immune disorders e.g. osteoarthritis, haemopoietic
CC disorders, inflammatory skin disorders, asthma and dyslipidaemia.
CC Furthermore, the nucleic acids and polypeptides may also be used to
CC identify molecules that modulate or inhibit neurogenesis, cell
CC differentiation and proliferation, haemopoiesis, wound healing and
CC angiogenesis, as well as in gene therapy. Finally, the nucleic acids may
CC be used as hybridisation probes, in chromosome mapping, tissue typing,
CC preventive medicine and pharmacogenomics. The current sequence is that of
CC the RT-PCR primer which was used within the exemplification of the
CC invention.
XX
SQ Sequence 20 BP; 5 A; 6 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1459 AGACCAGAGTCCAGCTGATT 1478
|||||| ||||||| ||
Db 1 AGACCAAGCTCCAGCTGTTT 20

RESULT 5181
ADE86164/c
ID ADE86164 standard; DNA; 20 BP.
XX
AC ADE86164;
XX
DT 29-JAN-2004 (first entry)
XX
DE HRAS gene regulatory region quadruplex DNA.
XX
KW HRAS; quadruplex DNA; gene therapy; cancer; cytostatic; oncogene; human;
KW ds.
XX
OS Homo sapiens.
XX
PN WO2003087317-A2.
XX
PD 23-OCT-2003.
XX
PF 04-APR-2003; 2003WO-US010658.
XX
PR 05-APR-2002; 2002US-0370358P.
PR 20-AUG-2002; 2002US-0404966P.

```
PR   20-MAR-2003; 2003US-0456637P.
XX
PA   (CYTE-) CYTERNEX INC.
PA   (ARIZ-) ARIZONA BOARD OF REGENTS.
XX
PI   Siddiqui-Jain A,  Grand CL,  Bearss DJ,  Hurley LH,  Farrell TJ;
XX
DR   WPI; 2003-853947/79.
XX
PT   Identifying a compound that modulates the biological activity of a native
PT   quadruplex DNA for treating colorectal cancer comprises determining the
PT   presence or absence of interaction between the candidate compound and the
PT   test quadruplex DNA.
XX
PS   Claim 3; Page 46; 69pp; English.
XX
CC   The present sequence is from the upstream regulatory region of the HRAS
CC   gene. The sequence is involved in the regulation of transcription. It
CC   forms a quadruplex structure through the formation of guanine tetrads.
CC   The sequence provides an example of intramolecular chair quadruplex DNA
CC   structures that have been identified as oncogene regulators. Certain
CC   mutations in quadruplex forming nucleotides sequences have been shown to
CC   destabilise quadruplex structure and are associated with cancer. Methods
CC   are provided for identifying quadruplex nucleotide sequences having
CC   destabilising guanine substitutions, for determining whether a subject is
CC   at risk of developing or having cancer, pharmacogenomic methods for
CC   targeting appropriate prevention or therapeutic regiments, methods for
CC   screening molecules that interact with stabilised and destabilised
CC   quadruplexes, and therapeutic methods for treating cancers, such as
CC   antisense nucleic acid cancer therapy that specifically targets DNA in
CC   subjects having a quadruplex-destabilising mutation.
XX
SQ   Sequence 20 BP; 0 A; 3 C; 17 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        289 CCCCGCGCCACCCCTCTCCC 308
              |||||| || |||| | |||
Db         20 CCCCGCCCCGCCCCGCCCCC 1


RESULT 5182
ADE86160/c
ID   ADE86160 standard; DNA; 20 BP.
XX
AC   ADE86160;
XX
DT   29-JAN-2004  (first entry)
XX
DE   RET gene regulatory region quadruplex DNA.
XX
KW   Platelet derived growth factor alpha; PDGF; quadruplex DNA; gene therapy;
KW   cancer; cytostatic; oncogene; human; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003087317-A2.
XX
PD   23-OCT-2003.
XX
PF   04-APR-2003; 2003WO-US010658.
XX
PR   05-APR-2002; 2002US-0370358P.
PR   20-AUG-2002; 2002US-0404966P.
PR   20-MAR-2003; 2003US-0456637P.
XX
PA   (CYTE-) CYTERNEX INC.
PA   (ARIZ-) ARIZONA BOARD OF REGENTS.
XX
PI   Siddiqui-Jain A,  Grand CL,  Bearss DJ,  Hurley LH,  Farrell TJ;
XX
DR   WPI; 2003-853947/79.
XX
PT   Identifying a compound that modulates the biological activity of a native
PT   quadruplex DNA for treating colorectal cancer comprises determining the
PT   presence or absence of interaction between the candidate compound and the
PT   test quadruplex DNA.
XX
PS   Claim 3; Page 46; 69pp; English.
XX
CC   The present sequence is from the upstream regulatory region of the RET.
CC   It forms a chair quadruplex structure ADE86192 with 2 stable tetrads that
CC   regulates transcription. The sequence provides an example of
CC   intramolecular chair quadruplex DNA structures that have been identified
CC   as oncogene regulators. Certain mutations in quadruplex forming
CC   nucleotides sequences have been shown to destabilise quadruplex structure
CC   and are associated with cancer. Methods are provided for identifying
CC   quadruplex nucleotide sequences having destabilising guanine
CC   substitutions, for determining whether a subject is at risk of developing
CC   or having cancer, pharmacogenomic methods for targeting appropriate
CC   prevention or therapeutic regiments, methods for screening molecules that
CC   interact with stabilised and destabilised quadruplexes, and therapeutic
CC   methods for treating cancers, such as antisense nucleic acid cancer
CC   therapy that specifically targets DNA in subjects having a quadruplex-
CC   destabilising mutation.
XX
SQ   Sequence 20 BP; 0 A; 3 C; 17 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        289 CCCCGCGCCACCCCTCTCCC 308
              |||||| || |||| | |||
Db         20 CCCCGCCCCGCCCCGCCCCC 1


RESULT 5183
ADD81701/c
ID   ADD81701 standard; DNA; 20 BP.
XX
AC   ADD81701;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #630.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
```

```
XX
PS   Example 2; SEQ ID NO 774; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 2 A; 3 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2784 TGAAAAAAAAAAAAAAAAAA 2803
              ||| | || |||||| ||||
Db         20 TGACAGAAGAAAAAATAAAA 1


RESULT 5184
ADD81702/c
ID   ADD81702 standard; DNA; 20 BP.
XX
AC   ADD81702;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #631.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 775; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAAAA 2802
              |||| | || |||||| |||
Db         20 TTGACAGAAGAAAAAATAAA 1


RESULT 5185
ADD81281/c
ID   ADD81281 standard; DNA; 20 BP.
XX
AC   ADD81281;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #210.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 354; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 7 A; 2 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy       1818 AAGTTTTAGAATCTTTTAAA 1837
              || | |||||  ||||||||
Db         20 AAATCTTAGAGCCTTTTAAA 1

RESULT 5186
ADD81478
ID   ADD81478 standard; DNA; 20 BP.
XX
AC   ADD81478;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #407.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 551; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2159 TTTCTCCTTTTTTTTTTTTT 2178
              ||  ||  |||||| ||||||
Db          1 TTACTGATTTTTTCTTTTTT 20

RESULT 5187
ADD81703/c
ID   ADD81703 standard; DNA; 20 BP.
XX
AC   ADD81703;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #632.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 776; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2782 ATTGAAAAAAAAAAAAAAAA 2801
              ||||| | || |||||| ||
Db         20 ATTGACAGAAGAAAAAATAA 1

RESULT 5188
ADE10334/c
ID   ADE10334 standard; DNA; 20 BP.
XX
AC   ADE10334;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Plasmid pKN108-derived probe PCR primer #1.
XX
KW   Mitomycin biosynthetic protein; mitomycin C; antibiotic; MC; apoptosis;
KW   tumour hypoxia; cytostatic; anti-tumour agent; cancer; ss; probe.
XX
OS   Unidentified.
```

```
XX
PN   US2003134398-A1.
XX
PD   17-JUL-2003.
XX
PF   12-SEP-2001; 2001US-00953348.
XX
PR   12-SEP-2001; 2001US-00953348.
XX
PA   (SHER/) SHERMAN D H.
PA   (MAOY/) MAO Y.
PA   (VARO/) VAROGLU M.
PA   (HEMM/) HE M.
PA   (SHEL/) SHELDON P.
XX
PI   Sherman DH,  Mao Y,  Varoglu M,  He M,  Sheldon P;
XX
DR   WPI; 2003-863498/80.
XX
PT   New nucleic acid molecule comprising a sequence having mitomycin
PT   biosynthetic gene cluster, useful for enhancing production of
PT   antibiotics.
XX
PS   Example 2; SEQ ID NO 89; 308pp; English.
XX
CC   The invention relates to an isolated and purified nucleic acid molecule
CC   comprising a sequence having mitomycin biosynthetic gene cluster, or its
CC   variant or fragment. Also included are an expression cassette comprising
CC   the novel nucleic acid molecule (operably linked to a promoter functional
CC   in a host cell), a recombinant bacterial host cell in which at least a
CC   portion of a nucleic acid molecule comprising mitomycin biosynthetic gene
CC   cluster is disrupted (resulting in a recombinant host cell that produces
CC   altered levels of mitomycin relative to a corresponding nonrecombinant
CC   bacterial host cell), introducing exogenous DNA into a refractory
CC   Streptomycin strain, identifying a nucleic acid molecule that is related
CC   to at least a portion of a nucleic acid molecule comprising a mitomycin
CC   gene cluster, preparing a compound or its salt from the recombinant host
CC   cell and a product produced by the recombinant host cell. The nucleic
CC   acid encodes a MitT, MitS, MitR, MitQ, MitP, MitO, MitN, MitM, MitL,
CC   MitK, MitJ, MitI, MitH, MitG, MitF, MitE, MitD, MitC, MitB, MitA and/or
CC   MmcA-MmcY. The nucleic acid is useful for enhancing production of
CC   mitomycin antibiotics, which induce apoptosis and hence are useful as
CC   anti-tumour (via tumour hypoxia) agents and are useful in treating
CC   cancer. The gene cluster was isolated from Streptomyces lavendulae. The
CC   present sequence is a probe used to screen an S. lavendulae genomic DNA
CC   library for mitomycin biosynthetic gene sequences.
XX
SQ   Sequence 20 BP; 1 A; 8 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        507 TGCCCTCGCACCACGGGCGC 526
              ||| | |||| ||||| |||
Db         20 TGCGCGCGCAGCACGGACGC 1


RESULT 5189
ADE10335
ID   ADE10335 standard; DNA; 20 BP.
XX
AC   ADE10335;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Plasmid pKN108-derived probe PCR primer #2.
XX
KW   Mitomycin biosynthetic protein; mitomycin C; antibiotic; MC; apoptosis;
KW   tumour hypoxia; cytostatic; anti-tumour agent; cancer; ss; probe.
XX
OS   Unidentified.
XX
```

```
PN   US2003134398-A1.
XX
PD   17-JUL-2003.
XX
PF   12-SEP-2001; 2001US-00953348.
XX
PR   12-SEP-2001; 2001US-00953348.
XX
PA   (SHER/) SHERMAN D H.
PA   (MAOY/) MAO Y.
PA   (VARO/) VAROGLU M.
PA   (HEMM/) HE M.
PA   (SHEL/) SHELDON P.
XX
PI   Sherman DH,  Mao Y,  Varoglu M,  He M,  Sheldon P;
XX
DR   WPI; 2003-863498/80.
XX
PT   New nucleic acid molecule comprising a sequence having mitomycin
PT   biosynthetic gene cluster, useful for enhancing production of
PT   antibiotics.
XX
PS   Example 2; SEQ ID NO 90; 308pp; English.
XX
CC   The invention relates to an isolated and purified nucleic acid molecule
CC   comprising a sequence having mitomycin biosynthetic gene cluster, or its
CC   variant or fragment. Also included are an expression cassette comprising
CC   the novel nucleic acid molecule (operably linked to a promoter functional
CC   in a host cell), a recombinant bacterial host cell in which at least a
CC   portion of a nucleic acid molecule comprising mitomycin biosynthetic gene
CC   cluster is disrupted (resulting in a recombinant host cell that produces
CC   altered levels of mitomycin relative to a corresponding nonrecombinant
CC   bacterial host cell), introducing exogenous DNA into a refractory
CC   Streptomycin strain, identifying a nucleic acid molecule that is related
CC   to at least a portion of a nucleic acid molecule comprising a mitomycin
CC   gene cluster, preparing a compound or its salt from the recombinant host
CC   cell and a product produced by the recombinant host cell. The nucleic
CC   acid encodes a MitT, MitS, MitR, MitQ, MitP, MitO, MitN, MitM, MitL,
CC   MitK, MitJ, MitI, MitH, MitG, MitF, MitE, MitD, MitC, MitB, MitA and/or
CC   MmcA-MmcY. The nucleic acid is useful for enhancing production of
CC   mitomycin antibiotics, which induce apoptosis and hence are useful as
CC   anti-tumour (via tumour hypoxia) agents and are useful in treating
CC   cancer. The gene cluster was isolated from Streptomyces lavendulae. The
CC   present sequence is a probe used to screen an S. lavendulae genomic DNA
CC   library for mitomycin biosynthetic gene sequences.
XX
SQ   Sequence 20 BP; 3 A; 8 C; 8 G; 1 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        507 TGCCCTCGCACCACGGGCGC 526
              ||| | |||| ||||| |||
Db          1 TGCGCGCGCAGCACGGACGC 20


RESULT 5190
ADE84223
ID   ADE84223 standard; DNA; 20 BP.
XX
AC   ADE84223;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human lymphoid cell proliferative disorder pre-treated DNA primer #7.
XX
KW   lymphoid cell proliferative disorder; methylation;
KW   methylated CpG dinucleotide; single nucleotide polymorphism; SNP;
KW   diffuse large B-cell lymphoma; mantle cell lymphoma;
KW   chronic lymphocytic leukemia; small lymphocytic lymphoma;
KW   follicular lymphoma; diagnosis; prognosis; primer; ss.
XX
```

OS Homo sapiens.
XX
PN WO2003044226-A2.
XX
PD 30-MAY-2003.
XX
PF 25-NOV-2002; 2002WO-EP013265.
XX
PR 23-NOV-2001; 2001DE-01057491.
PR 28-DEC-2001; 2001DE-01064501.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Burger M, Caldwell C, Genc B, Becker E, Maier S, Nimmrich I;
XX
DR WPI; 2003-457621/43.
XX
PT Detecting and differentiating between lymphoid cell proliferative
PT disorders comprises contacting a target nucleic acid with at least one
PT reagent that distinguishes between methylated and non-methylated CpG
PT dinucleotides.
XX
PS Claim 11; SEQ ID NO 219; 448pp; English.
XX
CC The invention relates to a method of detecting and differentiating
CC between lymphoid cell proliferative disorders associated with at least
CC one gene and/or their regulatory regions in a subject by contacting a
CC target nucleic acid in a biological sample obtained from the subject with
CC at least one reagent or series of reagents that distinguish between
CC methylated and non-methylated CpG dinucleotides within the target nucleic
CC acid. The genes and/or their regulatory regions are preferably selected
CC from MDR1, CSNK2B, EGR4, AR, CDK4, RB2, CDC25A, GPIb beta, MYOD1, CDH3,
CC MYCL1, ELK1, ABL1, APC, BCL2, CDH1, CDKN1A, CDKN1B, CDKN2a, CDKN2B, FOS,
CC GSTP1, HIC-1, MGMT, MLH1, MOS, MYC, PTEN, RBL2, TGFBR2, TP73, CDKNIC,
CC GSK3beta, ESR1, APAF1, BAK1, BAX or HOXA5. Oligomers, peptide nucleic
CC acid (PNA)-oligomers and/or isolated nucleic acids based on the sequences
CC of the genes are useful for detecting the methylation state of all the
CC CpG dinucleotides within one or more the sequences, or their complements,
CC for determining the cytosine methylation state and or single nucleotide
CC polymorphisms (SNPs), and for differentiating at least two of the medical
CC conditions such as diffuse large B-cell lymphoma, mantle cell lymphoma,
CC chronic lymphocytic leukemia, small lymphocytic lymphoma and follicular
CC lymphoma. They are also useful for detecting of a predisposition to,
CC differentiation between subclasses, diagnosis, prognosis, treating and/or
CC monitoring of lymphoid cell proliferative disorder. This sequence
CC represents a PCR primer used to amplify the nucleic acid of a pretreated
CC genomic DNA derived from the above mentioned genes.
XX
SQ Sequence 20 BP; 8 A; 0 C; 9 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 4.5e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2683 GGTGAAATGGAGATTTGGAA 2702
              || |||||||||| || ||
Db          1 GGGGAAATGGAGAAGTGTAA 20
```

RESULT 5191
AAZ26573/c
ID AAZ26573 standard; DNA; 21 BP.
XX
AC AAZ26573;
XX
DT 30-NOV-1999 (first entry)
XX
DE Human polymorphic region 762.
XX
KW Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW cell viability; loss of heterozygosity; precancerous condition; ASI;
KW allele specific inhibitor; somatic cell; diagnosis; prevention;
KW atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS Homo sapiens.
XX
PN WO9841648-A2.
XX
PD 24-SEP-1998.
XX
PF 19-MAR-1998; 98WO-US005419.
XX
PR 20-MAR-1997; 97US-0041057P.
XX
PA (VARI-) VARIAGENICS INC.
XX
PI Housman D, Ledley FD, Stanton VP;
XX
DR WPI; 1998-521232/44.
XX
PT Identifying target genes for allele-specific drugs - used for diagnosis,
PT prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT dysplastic lesions, endometriosis or graft versus host disease.
XX
PS Disclosure; Fig 7; 605pp; English.
XX
CC This invention describes a novel method for identifying an inhibitor
CC potentially useful for treatment of cancer, where the inhibitor is active
CC on a gene vital for cell growth or viability, and where the gene is
CC subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC used for preventing the development of cancer in a patient having a
CC precancerous condition, by administering to the patient a first allele
CC specific inhibitor (ASI) targeted to an allele of a first essential gene
CC present in cells of the precancerous condition, where the normal somatic
CC cells of the patient are heterozygous for the first gene, the inhibitor
CC is active on at least one but less than all allelic forms of the gene
CC present in a population and targets only one allelic form present in the
CC normal somatic cells, and the first gene. The products and methods can be
CC used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC graft versus host disease. The method can also be used to remove
CC malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC human polymorphic sites described in the method of the invention
XX
SQ Sequence 21 BP; 14 A; 1 C; 3 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.5%;  Score 13.6;  DB 1;  Length 21;
  Best Local Similarity   80.0%;  Pred. No. 4.8e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTAACTTTG 2193
              |||||||||| || | | ||
Db         21 TTTTTTTTTTATTCAATCTG 2
```

RESULT 5192
ADD24723
ID ADD24723 standard; DNA; 21 BP.
XX
AC ADD24723;
XX
DT 15-JAN-2004 (first entry)
XX
DE Human CYP2E1 mutant T7632A probe H210.
XX
KW diagnostic; pharmaceutical tolerance; side effect; drug; human;
KW allelic variability; polymorphism; phase I; phase II;
KW detoxification mechanism; PCR; primer; probe; NAT2; CYP2D6; CYP1A2;
KW CYP3A4; mEH; TPMT; MTHFR; paraoxonase; CYP2C9; CYP2C19; CYP2E1; DPD; ss.
XX
OS Homo sapiens.
XX
PN WO2003018837-A2.

XX
PD 06-MAR-2003.
XX
PF 22-AUG-2002; 2002WO-EP009386.
XX
PR 24-AUG-2001; 2001DE-01040651.
PR 30-APR-2002; 2002DE-01019373.
XX
PA (ADNA-) ADNAGEN AG.
XX
PI Waschuetza S, Schnakenberg E, Lustig M;
XX
DR WPI; 2003-290079/28.
XX
PT Diagnostic kit, useful for assessing a subject's tolerance of drugs,
PT comprises reagents for determining alleles of genes encoding
PT detoxification enzymes.
XX
PS Claim 6; Page 80; 156pp; German.
XX
CC This invention describes a novel diagnostic kit for determining tolerance
CC of pharmaceuticals in humans by determining allelic variability of at
CC least two polymorphisms of a human enzyme involved in phase I and/or II
CC of the detoxification mechanism in a blood, tissue or other human sample,
CC where tolerance is determined from presence or absence of alleles. The
CC kit comprises two pairs of oligonucleotide primers, in which each pair
CC amplifies, by PCR, part of a gene for a human detoxification mechanism-
CC associated enzyme. The kit may also contain two further pairs of
CC oligonucleotides, serving as probes for detection of amplified DNA
CC segments, especially where the probes are complementary to a single
CC strand of one allele of the target gene. The probes are labelled with
CC fluorophores (LC-Red640 or LC-Red705 for 5'-labelling or fluorescein for
CC 3'-labelling) which generate a different signal in the hybridized and non
CC -hybridized condition. The enzymes detected include NAT2, CYP2D6, CYP1A2,
CC CYP3A4, mEH, TPMT, MTHFR, paraoxonase, CYP2C9, CYP2C19, CYP2E1 or DPD.
CC The kit is used to determine an individual's tolerance of a particular
CC drug, to establish a suitable dose and/or to predict if a subject will
CC show side-effects to a drug. The kit provides minimally invasive, safe
CC and reliable determination of the metabolic capacity of phase I and/or II
CC enzymes at the molecular level. This sequence represents a probe used in
CC the kit of the invention.
XX
SQ Sequence 21 BP; 14 A; 1 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 21;
Best Local Similarity 80.0%; Pred. No. 4.8e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2784 TGAAAAAAAAAAAAAAAAAA 2803
||| ||||| ||||||||
Db 2 TGATTAAAAATTAAAAAAAA 21

RESULT 5193
AAX14678/c
ID AAX14678 standard; DNA; 22 BP.
XX
AC AAX14678;
XX
DT 24-MAR-1999 (first entry)
XX
DE Triple helix forming nucleotides 9-30 of gamma-crystallin gene.
XX
KW Triple-helix forming region; Triplex formation; DNA detection;
KW identification; bacteria; oncogene; virus; ds.
XX
OS Homo sapiens.
XX
PN US5861244-A.
XX
PD 19-JAN-1999.
XX
PF 22-DEC-1993; 93US-00173489.
XX
PR 29-OCT-1992; 92US-00968436.
XX
PA (PROF-) PROFILE DIAGNOSTIC SCI INC.
XX
PI Hepburn AG, Wang C;
XX
DR WPI; 1999-130384/11.
XX
PT Assay of genetic sequences based on triplex formation from double
PT stranded analyte - and hybrid of anchor and reporter sequences, with
PT reporter released if triplex formation occurs, used e.g. to identify
PT bacteria.
XX
PS Disclosure; Col 15-16; 168pp; English.
XX
CC The present sequence represents a potential triple-helix forming region.
CC It can be used to demonstrate the assay of the invention. The assay
CC comprises adding a sample containing double-stranded DNA test sequences,
CC e.g. containing the present sequence, to an aqueous medium containing at
CC least one complex of anchor DNA, attached to a solid support, and
CC reporter DNA, where either a part of the anchor DNA or reporter DNA is
CC designed to form a triple-strand structure with part of the test
CC sequence. Triplex formation results in displacement of the reporter DNA
CC which is detected as an indication of the presence of the DNA test
CC sequence. The method is used to detect DNA sequences, particularly for
CC identification of bacteria (by detecting genes for ribosomal RNA) in
CC clinical samples, but also detection of oncogenes and Hepatitis B virus
XX
SQ Sequence 22 BP; 1 A; 5 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 22;
Best Local Similarity 80.0%; Pred. No. 5e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAAAAAA 2804
|||| ||||| | || ||||
Db 21 GAAATAAAAAGAGAAGAAAA 2

RESULT 5194
AAT03687/c
ID AAT03687 standard; DNA; 24 BP.
XX
AC AAT03687;
XX
DT 17-JUL-1996 (first entry)
XX
DE Homopyrimidine probe for use in triplex-affinity capture method.
XX
KW Probe; purification method; triplex-affinity capture; triple helix;
KW specific binding pair; biotin; avidin; antigen; antibody; immobilisation;
KW heterogenous mix; S.cerevisiae; ss.
XX
OS Synthetic.
XX
PN US5482836-A.
XX
PD 09-JAN-1996.
XX
PF 14-JAN-1993; 93US-00004552.
XX
PR 14-JAN-1993; 93US-00004552.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Smith CL, Cantor CR, Ito T;
XX
DR WPI; 1996-076888/08.
XX
PT Isolating particular double stranded DNA - by formation of a triple helix
PT and sepn. using a specific molecular recognition system and a solid
PT carrier.

```
XX
PS   Claim 8; Col 21; 20pp; English.
XX
CC   The oligonucleotides AAT03687-9 are examples of probes used in a novel
CC   DNA purification method designated triplex-affinity capture. The method
CC   comprises binding an oligonucleotide probe to a double-stranded target
CC   nucleic acid under conditions where a triple helix is formed. The probe
CC   is attached directly or indirectly to the one half of a specific binding
CC   pair e.g. biotin/avidin, antigen/antibody. The other half of the binding
CC   pair is attached to an immobilising agent e.g. a bead. After formation of
CC   the target-probe-binding pair-solid support complex, the target mol. can
CC   be recovered by separating the complex from the medium and separating the
CC   probe from the target nucleic acid. The method can be used to isolate
CC   very large specific intact double strand DNA from a heterogenous mix.
CC   This primer was used in conjunction with a S.cerevisiae strain contg. a
CC   triple helix sequence integrated into the LEU2 locus. Genomic DNA from
CC   the strain was cloned into the plasmid pTZ19RG, a derivative of pTZ19R
CC   contg. rare restriction endonuclease sites
XX
SQ   Sequence 24 BP; 0 A; 6 C; 0 G; 18 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 24;
  Best Local Similarity   80.0%;  Pred. No. 5.2e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAAAA 2804
              |||||| ||| || |||| |
Db         22 GAAAAAGAAAGAAGAAAAGA 3


RESULT 5195
AAL42406/c
ID   AAL42406 standard; DNA; 24 BP.
XX
AC   AAL42406;
XX
DT   28-JUN-2002  (first entry)
XX
DE   Human ORC413-64 PCR primer 2.
XX
KW   Human; ss; replication initiation recognition complex subunit; ORC413.64;
KW   cancer; HIV; PCR; primer.
XX
OS   Homo sapiens.
XX
PN   CN1327995-A.
XX
PD   26-DEC-2001.
XX
PF   12-JUN-2000; 2000CN-00116447.
XX
PR   12-JUN-2000; 2000CN-00116447.
XX
PA   (BODE-) BODE GENE DEV CO LTD SHANGHAI.
XX
PI   Mao Y,  Xie Y;
XX
DR   WPI; 2002-270050/32.
XX
PT   New polypeptide-replication initiation recognition complex subunit
PT   ORC413.64 for treating diseases such as cancer, and human
PT   immunodeficiency virus infection.
XX
PS   Example 2; Page 18 (Disclosure); 34pp; Chinese.
XX
CC   The invention comprises the amino acid and nucleotide sequences of the
CC   human replication initiation recognition complex subunit ORC413.64. The
CC   ORC413.64 nucleotide and protein sequences of the invention are useful
CC   for treating diseases such as cancer and HIV. The present DNA sequence
CC   represents a PCR primer specific for the gene sequence of the human
CC   replication initiation recognition complex subunit ORC413.64
XX
SQ   Sequence 24 BP; 1 A; 4 C; 1 G; 18 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 24;
  Best Local Similarity   80.0%;  Pred. No. 5.2e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAAAA 2804
              |||||||  ||||||  ||
Db         24 GAAAAAAATCAAAAAAGGAA 5


RESULT 5196
AAC96455/c
ID   AAC96455 standard; DNA; 25 BP.
XX
AC   AAC96455;
XX
DT   26-FEB-2001  (first entry)
XX
DE   HLA DQB1 gene PCR primer #7.
XX
KW   DNA sequence analysis; sequencing; protein sequence; protein structure;
KW   gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW   human leukocyte antigen; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200065088-A2.
XX
PD   02-NOV-2000.
XX
PF   20-APR-2000; 2000WO-EP003636.
XX
PR   26-APR-1999;   99EP-00303215.
XX
PA   (AMSH ) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI   Ulfendahl P,  Wong K;
XX
DR   WPI; 2000-679677/66.
XX
PT   Identifying extendible primers for use in identification, or
PT   classification of a nucleic acid of an organism, allele or gene such as
PT   class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT   specific length.
XX
PS   Claim 14; Page 51; 66pp; English.
XX
CC   The present invention provides a method for identifying a set of
CC   extendible primers which can be used in the identification, typing and
CC   classification of genes. This can then be used to predict protein
CC   sequence and structure, in organ donation to match the organ with the
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 4 A; 2 C; 5 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 25;
  Best Local Similarity   80.0%;  Pred. No. 5.3e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2778 TAGAATTGAAAAAAAAAAAAA 2797
              | | | | ||||||||||||||
Db         20 TCGTAGTTAAAAAAAAAAAAA 1


RESULT 5197
AAC96092
ID   AAC96092 standard; DNA; 25 BP.
XX
AC   AAC96092;
XX
DT   26-FEB-2001  (first entry)
```

XX
DE 16s rRNA gene PCR primer #59.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 45; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 3 A; 3 C; 4 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 25;
Best Local Similarity 80.0%; Pred. No. 5.3e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2171 TTTTTTTTTTTTTTTAACT 2190
||||||||||||| | || |
Db 1 TTTTTTTTTTTGTGGAATT 20

RESULT 5198
AAC96353
ID AAC96353 standard; DNA; 25 BP.
XX
AC AAC96353;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DPB1 gene PCR primer #85.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 49; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 2 A; 5 C; 2 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.6; DB 1; Length 25;
Best Local Similarity 80.0%; Pred. No. 5.3e+03;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2171 TTTTTTTTTTTTTTTAACT 2190
||||||||||||| || | |
Db 1 TTTTTTTTTTTTGTTCCAGT 20

RESULT 5199
AAC95751
ID AAC95751 standard; DNA; 25 BP.
XX
AC AAC95751;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DQB1 gene PCR primer #22.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 39; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the

```
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 2 A; 3 C; 6 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.6;  DB 1;  Length 25;
  Best Local Similarity   80.0%;  Pred. No. 5.3e+03;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTAACTTTG 2193
              ||||||||||| ||  | |
Db          1 TTTTTTTTTTTTCAAGGTCG 20


RESULT 5200
AAT52142
ID   AAT52142 standard; RNA; 15 BP.
XX
AC   AAT52142;
XX
DT   25-MAR-2003  (revised)
DT   25-MAR-1997  (first entry)
XX
DE   Human ICAM hammerhead ribozyme target sequence (nt. position 2913).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome; AIDS;
KW   ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB000156.
XX
PR   23-FEB-1994;   94US-00201109.
PR   29-MAR-1994;   94US-00218934.
PR   04-APR-1994;   94US-00222795.
PR   07-APR-1994;   94US-00224483.
PR   15-APR-1994;   94US-00227958.
PR   15-APR-1994;   94US-00228041.
PR   18-MAY-1994;   94US-00245736.
PR   06-JUL-1994;   94US-00271280.
PR   15-AUG-1994;   94US-00291932.
PR   16-AUG-1994;   94US-00291433.
PR   17-AUG-1994;   94US-00292620.
PR   19-AUG-1994;   94US-00293520.
PR   02-SEP-1994;   94US-00300000.
PR   08-SEP-1994;   94US-00303039.
PR   23-SEP-1994;   94US-00311486.
PR   23-SEP-1994;   94US-00311749.
PR   28-SEP-1994;   94US-00314397.
PR   03-OCT-1994;   94US-00316771.
PR   07-OCT-1994;   94US-00319492.
PR   11-OCT-1994;   94US-00321993.
PR   04-NOV-1994;   94US-00334847.
PR   10-NOV-1994;   94US-00337608.
PR   28-NOV-1994;   94US-00345516.
PR   16-DEC-1994;   94US-00357577.
PR   23-DEC-1994;   94US-00363233.
PR   30-JAN-1995;   95US-00380734.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-Adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D,  Thompson JD;
PI   Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them - for use
PT   in inhibiting disease related genes.
XX
PS   Claim 2; Page 175; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the
CC   nucleotide base position indicated in the DE line. Regions of the mRNA
CC   that do not form secondary folding structures and that contain potential
CC   hammerhead and hairpin ribozyme cleavage sites were identified by
CC   computer analysis. Ribozymes directed against these mRNA sequences were
CC   designed and synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes cleave the ICAM-1 target sequences and thereby
CC   inhibit ICAM-1 expression, making them useful for reducing transplant
CC   rejection and alleviating symptoms in patients with rheumatoid arthritis,
CC   asthma and other inflammatory disorders. (Updated on 25-MAR-2003 to
CC   correct PI field.)
XX
SQ   Sequence 15 BP; 1 A; 1 C; 0 G; 0 T; 13 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   6.7%;  Pred. No. 2.9e+03;
  Matches    1;  Conservative   13;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2173 TTTTTTTTTTTTTTA 2187
              ::::::::::::: |
Db          1 UUUUUUUUUUUUUCA 15


RESULT 5201
AAA11718
ID   AAA11718 standard; DNA; 15 BP.
XX
AC   AAA11718;
XX
DT   14-JUL-2000  (first entry)
XX
DE   Human MIF gene D5k region primer #2.
XX
KW   MIF; migration inhibitory factor; D5k region; human; macrophage;
KW   diagnosis; primer; adenocarcinoma; metastasis; cancer; tumor cell; ss.
XX
OS   Homo sapiens.
XX
PN   US6043044-A.
XX
PD   28-MAR-2000.
XX
PF   15-JUL-1997;   97US-00893204.
XX
PR   15-JUL-1997;   97US-00893204.
XX
PA   (HUDS/) HUDSON P B.
PA   (HAKK/) HAKKY S I.
PA   (SIEG/) SIEGLER K M.
PA   (HAKK/) HAKKI A.
XX
PI   Hakky SI,  Hudson PB,  Siegler KM,  Hakki A;
XX
DR   WPI; 2000-292363/25.
XX
PT   A new method useful for diagnosing human adenocarcinoma and measuring
PT   metastatic potential comprises determining the levels of macrophage
PT   migration inhibitory factor within tumor cells.
```

```
XX
PS   Claim 11; Col 7-8; 6pp; English.
XX
CC   This invention describes a novel method for diagnosing adenocarcinoma and
CC   determining metastatic ability of human cancer in an individual by
CC   determining the increased levels of macrophage migration inhibitory
CC   factor (MIF) within tumor cells. The method is useful for diagnosing
CC   human adenocarcinoma, as well as for its prognosis. The method is also
CC   useful for measuring levels of macrophage migration inhibitory factor
CC   within tumor cells. The method provides better and more accurate
CC   prognostic markers for cancer. The method is also capable of
CC   distinguishing histological tumors from clinical cancers. This sequence
CC   represents a primer used to detect the human MIF gene D5k region which is
CC   described in the method of the invention
XX
SQ   Sequence 15 BP; 0 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTT 2180
              ||||||||||||| |
Db          1 TTTTTTTTTTTTTCT 15


RESULT 5202
AAF60455
ID   AAF60455 standard; DNA; 15 BP.
XX
AC   AAF60455;
XX
DT   27-APR-2001  (first entry)
XX
DE   Oligonucleotide clamp #10.
XX
KW   Oligonucleotide clamp; ds.
XX
OS   Unidentified.
XX
PN   US6180777-B1.
XX
PD   30-JAN-2001.
XX
PF   03-JAN-1997;   97US-00787321.
XX
PR   12-JAN-1996;   96US-0009918P.
XX
PA   (FARB ) BAYER CORP.
XX
PI   Horn T;
XX
DR   WPI; 2001-201911/20.
XX
PT   Synthesizing branched nucleic acids useful as diagnostic and molecular
PT   probes, involves combining first units having haloalkylamino groups and
PT   second units having thiol or phosphorothioate groups.
XX
PS   Example 5; Col 17-18; 20pp; English.
XX
CC   The present invention relates to a method for synthesising a branched or
CC   multiply connected macromolecular structure, comprising oligonucleotide
CC   clamps (OC). The macromolecular structure is capable of specifically
CC   binding to a target molecule, and can therefore be used as probes. At
CC   least one OC comprises a target binding sequence that binds specifically
CC   and stably with the target molecule, and at least two OCs comprise signal
CC   generation moieties capable of generating a detectable signal in the
CC   presence of the target molecule. In addition the OCs are connected to one
CC   another by thioalkylamino, or thiophosphorylalkylamino bridges. The
CC   present sequence is an OC used in the present invention
XX
SQ   Sequence 15 BP; 1 A; 2 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2175 TTTTTTTTTTTTAAC 2189
              ||||||||||||  ||
Db          1 TTTTTTTTTTTTCAC 15


RESULT 5203
ABL57076/c
ID   ABL57076 standard; DNA; 16 BP.
XX
AC   ABL57076;
XX
DT   22-JUL-2002  (first entry)
XX
DE   Molecular beacon target sequence (single mismatch).
XX
KW   Molecular beacon; fluorophore; nanoparticle; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    9
FT                   /*tag=  a
FT                   /note= "mismatch site"
XX
PN   WO200218951-A2.
XX
PD   07-MAR-2002.
XX
PF   29-AUG-2001; 2001WO-US041941.
XX
PR   29-AUG-2000; 2000US-0228728P.
PR   30-MAR-2001; 2001US-0280350P.
XX
PA   (UYRQ ) UNIV ROCKEFELLER.
XX
PI   Dubertret B,  Calame M,  Libchaber A;
XX
DR   WPI; 2002-404569/43.
XX
PT   Sensitively detecting proximity changes in a system that utilizes an
PT   interacting fluorophore and quencher, for high sensitivity applications,
PT   involves utilizing a metal surface as quencher.
XX
PS   Example 3; Page 30; 62pp; English.
XX
CC   The present sequence is that of a single mismatch target sequence for a
CC   molecular beacon comprising an oligonucleotide probe (see ABL57069)
CC   covalently attached at the 3' end to fluorescent dye and at the 5' end to
CC   a nanoparticle. In the native state, the probe forms a hairpin
CC   conformation with hybridised termini. The proximity of the fluorophore
CC   and quencher (gold nanoparticle) in the molecular beacon results in
CC   little or no detectable fluorescence. Upon hybridisation of the central
CC   complementary stretch of the probe to a target sequence, such as the
CC   present sequence, the hairpin undergoes a conformational change resulting
CC   in an increase in fluorescence, the extent of which is proportional to
CC   the amount of target sequence present. Experiments with the present
CC   sequence and a perfectly-matched target (see ABL57071) showed that
CC   hybridisation was very specific to the matched target. The invention
CC   relates generally to the use of metal surface quenchers such as particles
CC   or films for high sensitivity applications in, for example, detection and
CC   diagnostic systems
XX
SQ   Sequence 16 BP; 14 A; 1 C; 1 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 16;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTT 2180
```

```
                ||||||| |||||||
Db          16 TTTTTTTGTTTTTTT 2
```

RESULT 5204
AAD57846/c
ID AAD57846 standard; DNA; 16 BP.
XX
AC AAD57846;
XX
DT 20-NOV-2003 (first entry)
XX
DE Target oligonucleotide #3 used in nonlinear optical technique.
XX
KW Nonlinear optical technique; screening; ss.
XX
OS Unidentified.
XX
PN WO2003064991-A2.
XX
PD 07-AUG-2003.
XX
PF 17-JUL-2002; 2002WO-US022681.
XX
PR 17-JUL-2001; 2001US-0306040P.
PR 23-OCT-2001; 2001US-0347821P.
PR 06-FEB-2002; 2002US-0354668P.
XX
PA (SALA/) SALAFSKY J S.
XX
PI Salafsky JS;
XX
DR WPI; 2003-646172/61.
XX
PT Screening candidate binding partner(s) for binding to test molecule by
PT applying external force field to sample in homogeneous phase,
PT illuminating sample with light beam(s) at fundamental frequencies, and
PT measuring physical properties.
XX
PS Disclosure; Fig 20-B; 146pp; English.
XX
CC The present invention relates to a method for detecting interactions
CC between biological components using a nonlinear optical technique. The
CC invention is used for screening candidate binding partner(s) for binding
CC to test molecule. It can also be used to detect changes in orientation or
CC conformation of the probe and/or target. The present sequence is a target
CC oligonucleotide used in nonlinear optical technique
XX
SQ Sequence 16 BP; 14 A; 1 C; 1 G; 0 T; 0 U; 0 Other;

 Query Match 0.5%; Score 13.4; DB 1; Length 16;
 Best Local Similarity 93.3%; Pred. No. 3.3e+03;
 Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       2166 TTTTTTTTTTTTTTT 2180
              ||||||| |||||||
Db         16 TTTTTTTGTTTTTTT 2
```

RESULT 5205
AAF03225/c
ID AAF03225 standard; DNA; 17 BP.
XX
AC AAF03225;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #1520.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 37; Page 90; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 3 A; 0 C; 2 G; 12 T; 0 U; 0 Other;

 Query Match 0.5%; Score 13.4; DB 1; Length 17;
 Best Local Similarity 93.3%; Pred. No. 3.7e+03;
 Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       2782 ATTGAAAAAAAAAAA 2796
              ||| ||||||||||
Db         16 ATTCAAAAAAAAAAA 2
```

RESULT 5206
AAF03224/c
ID AAF03224 standard; DNA; 17 BP.
XX
AC AAF03224;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #1519.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.

```
XX
PS   Claim 37; Page 90; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 4 A; 0 C; 1 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.7e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2782 ATTGAAAAAAAAAAA 2796
              ||| ||||||||||
Db         17 ATTCAAAAAAAAAAA 3


RESULT 5207
AAF03226/c
ID   AAF03226 standard; DNA; 17 BP.
XX
AC   AAF03226;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1521.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 37; Page 90; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 2 A; 0 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.7e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2782 ATTGAAAAAAAAAAA 2796
              ||| ||||||||||
Db         15 ATTCAAAAAAAAAAA 1


RESULT 5208
ADB40890/c
ID   ADB40890 standard; DNA; 17 BP.
XX
AC   ADB40890;
XX
DT   18-DEC-2003  (revised)
DT   04-DEC-2003  (first entry)
XX
DE   Tumour suppression/reversion associated nucleotide #1213.
XX
KW   cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
KW   primer; probe; tumour suppression; tumour reversion; apoptosis;
KW   virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
KW   diagnosis.
XX
OS   Homo sapiens.
XX
PN   WO2003040369-A2.
XX
PD   15-MAY-2003.
XX
PF   17-SEP-2002; 2002WO-IB004219.
XX
PR   17-SEP-2001; 2001FR-00011981.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-441574/41.
XX
PT   New nucleic acid encoding human prostate membrane-specific antigen,
PT   useful e.g. for treatment of tumors and viral infection, also related
PT   polypeptide and antibodies.
XX
PS   Disclosure; Page 173; 771pp; French.
XX
CC   The invention relates to the isolation of 6327 nucleotide sequences,
CC   fragments of at least 15 consecutive nucleotides of these nucleotides, a
CC   sequence having at least 80% identity, after optimal alignment, with the
CC   nucleotides, a sequence that hybridizes under stringent conditions with
CC   the nucleotides, or the complement, or corresponding RNA, of the
CC   nucleotides. The nucleotides are used as probes or primers for detecting,
CC   identifying, quantifying and/or amplifying nucleic acids, as in vitro
CC   sense and antisense sequences, of nucleotides involved in tumour
CC   suppression or reversion, apoptosis and or viral resistance, to produce
CC   recombinant polypeptides, and to prepare transgenic animals, as
CC   experimental models. The nucleotides (also vectors containing them and
CC   cells containing the vectors), the encoded polypeptides and antibodies
CC   (Ab) against the polypeptide are useful for prevention and/or treatment
CC   of viral infections or diseases characterized by development of tumours
CC   or cell degeneration (e.g. Alzheimer's disease or schizophrenia).
CC   Analysis of the expression of the nucleotides can be used for diagnosis
CC   and/or prognosis of these diseases. The nucleotides and polypeptides can
CC   also be used to screen for their specific interactive molecules,
CC   potentially useful for treating diseases associated with abnormal
CC   expression of the nucleotides.
XX
SQ   Sequence 17 BP; 1 A; 1 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.7e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAA 2800
              ||||||||||||| |
Db         17 AAAAAAAAAAAAAGA 3
```

```
RESULT 5209
AAC82922/c
ID   AAC82922 standard; DNA; 20 BP.
XX
AC   AAC82922;
XX
DT   21-MAR-2001  (first entry)
XX
DE   Human S-9 derived oligonucleotide #6.
XX
KW   Recognition system; screening; identification; pharmaceutical; toxin;
KW   plant protection agent; toxin; venom; carcinogen; venom; teratogen;
KW   herbicide; fungicide; pesticide; beta-actin; human; ss.
XX
OS   Homo sapiens.
XX
PN   DE19923966-A1.
XX
PD   30-NOV-2000.
XX
PF   25-MAY-1999;   99DE-01023966.
XX
PR   25-MAY-1999;   99DE-01023966.
XX
PA   (AVET ) AVENTIS RES & TECHNOLOGIES GMBH & CO KG.
XX
PI   Boekenkamp D,  Hoppe H,  Burgstaller P;
XX
DR   WPI; 2001-050938/07.
XX
PT   Recognition system, e.g. for identifying nucleic acids, comprises at
PT   least one recognition unit comprising a region with a defined structure
PT   adjacent to a region with a randomized structure.
XX
PS   Example; Fig 1; 8pp; German.
XX
CC   This invention describes a novel recognition system comprising at least 1
CC   recognition unit bound to a support, each recognition unit comprising a
CC   region A with a defined structure adjacent to a region B with a
CC   randomized structure. The recognition system is useful for screening,
CC   identifying, or characterizing at least 1 component of a sample,
CC   especially nucleic acids and/or proteins, and for screening for and/or
CC   identifying cellular or synthetic binding partners, preferably proteins,
CC   peptides, nucleic acids, chemical agents, preferably organic compounds,
CC   pharmaceuticals, plant protection agents, toxins, venoms, carcinogens,
CC   teratogens, herbicides, fungicides or pesticides
XX
SQ   Sequence 20 BP; 2 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 20;
  Best Local Similarity   93.3%;  Pred. No. 4.7e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAA 2797
              || ||||||||||||
Db         15 TTAAAAAAAAAAAAA 1


RESULT 5210
AAF87713/c
ID   AAF87713 standard; DNA; 20 BP.
XX
AC   AAF87713;
XX
DT   06-JUL-2001  (first entry)
XX
DE   Human glutathione S-transferase pi promoter (GSTP1) PCR primer N-F1.
XX
KW   Human; glutathione S-transferase pi; GSTP1; CpG island; diagnosis;
KW   hepatic cell proliferative disorder; liver cancer; anticancer;
KW   tumourigenesis; detection; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200126536-A2.
XX
PD   19-APR-2001.
XX
PF   12-OCT-2000; 2000WO-US028427.
XX
PR   13-OCT-1999;   99US-0159168P.
XX
PA   (UYJO ) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
XX
PI   Nelson WG,  Lin X,  Tchou JC,  Bakker J;
XX
DR   WPI; 2001-290647/30.
XX
PT   Detecting hepatic cell proliferative disorder useful for detecting
PT   hepatocellular carcinoma comprises detecting a methylated CpG-containing
PT   glutathione-S-transferase nucleic acid.
XX
PS   Claim 83; Page 42; 64pp; English.
XX
CC   The present invention describes a method for detecting hepatic cell
CC   proliferative disorders. The method comprises detecting a methylated CpG-
CC   containing glutathione-S-transferase (GST) nucleic acid (I) in a hepatic
CC   specimen or a biological fluid, where a methylated GST nucleic acid is
CC   indicative of a hepatic cell proliferative disorder. The method can be
CC   used to diagnose hepatocellular carcinoma, and to monitor progress of its
CC   treatment. Increasing the level of GST is useful in the treatment of
CC   liver cancer, in humans or animals. The method can detect the early
CC   stages of tumourigenesis in liver cells simply. The present sequence
CC   represents a PCR primer which is used in the amplification of the human
CC   glutathione S-transferase pi gene (GSTP1) promoter in an example from the
CC   present invention for mapping somatic GSTP1 CpG island DNA
CC   hyperethylation changes by genomic sequencing after bisulfite treatment
XX
SQ   Sequence 20 BP; 4 A; 0 C; 2 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 20;
  Best Local Similarity   93.3%;  Pred. No. 4.7e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAA 2797
              || ||||||||||||
Db         19 TTAAAAAAAAAAAAA 5


RESULT 5211
AAQ52305/c
ID   AAQ52305 standard; cDNA; 20 BP.
XX
AC   AAQ52305;
XX
DT   25-MAR-2003  (revised)
DT   03-JUN-1994  (first entry)
XX
DE   FKBP12C PCR primer VX10201.
XX
KW   Transplant rejection; monitoring; FK506 immunosuppressant therapy;
KW   tissue specific; polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9323548-A2.
XX
PD   25-NOV-1993.
XX
PF   20-MAY-1993;   93WO-US004916.
XX
PR   20-MAY-1992;   92US-00886611.
XX
PA   (VERT-) VERTEX PHARM INC.
```

XX
PI Peattie DA;
XX
DR WPI; 1993-386579/48.
XX
PT New cDNA for tissue specific FK506 binding proteins - and detection of
PT its mRNA to monitor transplant rejection and effect or FK506
PT immunosuppressant therapy.
XX
PS Example 4; Page 35; 54pp; English.
XX
CC The sequence is that of a PCR primer VX10201 which was used to amplify
CC DNA specific to FKBP12C. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 20 BP; 1 A; 11 C; 6 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.4; DB 1; Length 20;
Best Local Similarity 93.3%; Pred. No. 4.7e+03;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 59 GGCGGCGGCAGACGC 73
||||||||| |||||
Db 20 GGCGGCGGCGGACGC 6

RESULT 5212
ABZ94127
ID ABZ94127 standard; DNA; 20 BP.
XX
AC ABZ94127;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 9369; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 14 A; 1 C; 3 G; 1 T; 0 U; 1 Other;

Query Match 0.5%; Score 13.4; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 4.7e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2782 ATTGAAAAAAAAAAAA 2797
| ||||| ||||||||
Db 5 AGTGAAANAAAAAAAA 20

RESULT 5213
AAF87033/c
ID AAF87033 standard; DNA; 21 BP.
XX
AC AAF87033;
XX
DT 18-SEP-2001 (first entry)
XX
DE Anchored 3' oligo dT12 primer.
XX
KW Sequencing primer; definitive ectoderm equivalent cell; DEE cell;
KW cell preparation; early primitive ectoderm-like cell; EPL cell; human;
KW cell therapy; gene therapy; neuroectoderm cell; organ transplant;
KW neurodegenerative disease; Parkinson's disease; Alzheimer's disease;
KW stroke; spinal cord injury; therapy; ss.
XX
OS Synthetic.
XX
PN WO200151610-A1.
XX
PD 19-JUL-2001.
XX
PF 12-JAN-2001; 2001WO-AU000029.
XX
PR 14-JAN-2000; 2000AU-00005098.
PR 20-APR-2000; 2000AU-00007045.
PR 27-APR-2000; 2000AU-00007143.
XX
PA (BRES-) BRESAGEN LTD.
PA (LONG/) LONG C L O.
XX
PI Long CLO, Rathjen PD, Rathjen J;
XX
DR WPI; 2001-432907/46.
XX
PT Preparing (M1) definitive ectoderm equivalent (DEE) cells in vitro for
PT treatment of Parkinson's and Alzheimers comprises culturing early
PT primitive ectoderm-like cells in conditioned medium.
XX
PS Example; Page 37; 116pp; English.
XX
CC This sequence represents a sequencing primer used within the scope of the
CC invention. The invention relates to a method for preparing definitive
CC ectoderm equivalent (DEE) cells in vitro comprising providing: (a) early
CC primitive ectoderm-like (EPL) cells; and (b) a conditioned medium or
CC extract exhibiting neural inducing properties and culturing the EPL cells
CC for a time to permit controlled differentiation to DEE cells. The DEE
CC cells, or their differentiated or partially differentiated progeny are

```
CC   useful in human cell therapy or transgenic animal production and for use
CC   in human or animal gene therapy. The method is useful for preparing DEE
CC   cells in vitro. It can also be used for selectively producing
CC   neuroectoderm cells or surface ectoderm cells from DEE cells. The method
CC   can also be used to produce genetically modified DEE cells. It is also
CC   useful for preparing tissues or organ for transplant. The cells are
CC   useful for treating and curing neurodegenerative diseases such as
CC   Parkinson's disease and Alzheimer's disease and pathological conditions
CC   such as stroke and spinal cord injury by replacing or assisting the
CC   function of normal disease tissues. They are also useful for the
CC   treatment of corneal disorders. The methods are useful for producing
CC   cells as a source for reprogramming and for use in pharmaceutical or
CC   toxicological screening
XX
SQ   Sequence 21 BP; 4 A; 1 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 21;
  Best Local Similarity   93.3%;  Pred. No. 5e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2800
              ||||||||||||| ||
Db         20 AAAAAAAAAAAAGAA 6


RESULT 5214
AAF80105
ID   AAF80105 standard; DNA; 21 BP.
XX
AC   AAF80105;
XX
DT   11-JUN-2001  (first entry)
XX
DE   Nucleotide sequence of a polymorphism site in a target gene.
XX
KW   Gene inhibitor; cancer; allele specific inhibitor;
KW   proliferative disorder; ss.
XX
OS   Homo sapiens.
XX
PN   US6200754-B1.
XX
PD   13-MAR-2001.
XX
PF   19-MAR-1998;   98US-00045054.
XX
PR   19-MAR-1998;   98US-00045054.
XX
PA   (VARI-) VARIAGENICS INC.
XX
PI   Housman DE,  Ledley FD,  Stanton VP;
XX
DR   WPI; 2001-256468/26.
XX
PT   Identifying inhibitor active on conditionally essential gene (EG) subject
PT   to loss of heterozygosity in cancer, useful in cancer treatment, involves
PT   determining two alleles of EG and testing potential allele specific
PT   inhibitor.
XX
PS   Disclosure; Fig 2; 43pp; English.
XX
CC   The specification describes a method for identifying inhibitors active on
CC   conditionally essential genes subject to loss of heterozygosity in
CC   cancer. The method involves determining two alleles of the essential
CC   gene, testing potential allele specific inhibitors to determine whether
CC   the inhibitor is active on at least one but less than all of alleles. The
CC   inhibitors suppress either the synthesis or the biological activity of
CC   the target allelic gene product. The inhibitors are useful for treating
CC   or preventing cancer or other proliferative disorders in a patient. They
CC   are also useful for inhibiting growth of a cell by subjecting the cell to
CC   conditions such that the gene is essential and administering an inhibitor
CC   active on an allele of the conditionally essential gene. Use of allele
CC   specific inhibitors allows specific killing or reduction of growth of
CC   cancer cells. AAF80072-AAF80115 represent the sequences around
CC   polymorphism sites of various target genes
XX
SQ   Sequence 21 BP; 14 A; 3 C; 1 G; 2 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 21;
  Best Local Similarity   82.4%;  Pred. No. 5e+03;
  Matches   14;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2802
              || | ||:|||||||||
Db          5 AACATAARAAAAAAAAA 21


RESULT 5215
ABL57072/c
ID   ABL57072 standard; DNA; 21 BP.
XX
AC   ABL57072;
XX
DT   22-JUL-2002  (first entry)
XX
DE   Molecular beacon target sequence (single mismatch).
XX
KW   Molecular beacon; fluorophore; nanoparticle; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    9
FT                   /*tag=  a
FT                   /note= "mismatch site"
XX
PN   WO200218951-A2.
XX
PD   07-MAR-2002.
XX
PF   29-AUG-2001; 2001WO-US041941.
XX
PR   29-AUG-2000; 2000US-0228728P.
PR   30-MAR-2001; 2001US-0280350P.
XX
PA   (UYRQ ) UNIV ROCKEFELLER.
XX
PI   Dubertret B,  Calame M,  Libchaber A;
XX
DR   WPI; 2002-404569/43.
XX
PT   Sensitively detecting proximity changes in a system that utilizes an
PT   interacting fluorophore and quencher, for high sensitivity applications,
PT   involves utilizing a metal surface as quencher.
XX
PS   Example 3; Page 62; 62pp; English.
XX
CC   The present sequence is that of a single mismatch target sequence for a
CC   molecular beacon comprising an oligonucleotide probe (see ABL57069)
CC   covalently attached at the 3' end to fluorescent dye and at the 5' end to
CC   a nanoparticle. In the native state, the probe forms a hairpin
CC   conformation with hybridised termini. The proximity of the fluorophore
CC   and quencher (gold nanoparticle) in the molecular beacon results in
CC   little or no detectable fluorescence. Upon hybridisation of the central
CC   complementary stretch of the probe to a target sequence, such as the
CC   present sequence, the hairpin undergoes a conformational change resulting
CC   in an increase in fluorescence, the extent of which is proportional to
CC   the amount of target sequence present. Experiments with the present
CC   sequence and a perfectly-matched target (see ABL57071) showed that
CC   hybridisation was very specific to the matched target. The invention
CC   relates generally to the use of metal surface quenchers such as particles
CC   or films for high sensitivity applications in, for example, detection and
CC   diagnostic systems
XX
SQ   Sequence 21 BP; 14 A; 4 C; 2 G; 1 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.4;  DB 1;  Length 21;
  Best Local Similarity   93.3%;  Pred. No. 5e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTT 2180
              ||||||| |||||||
Db         16 TTTTTTTGTTTTTTT 2


RESULT 5216
ABS58234
ID   ABS58234 standard; DNA; 21 BP.
XX
AC   ABS58234;
XX
DT   05-FEB-2003  (first entry)
XX
DE   Sequence surrounding polymorphism target 1539.21.
XX
KW   Cancer; ss; single nucleotide polymorphism; human; SNP; CEG; LOH;
KW   conditionally essential gene; alternative allele; loss of heterozygosity;
KW   antiproliferative treatment; glutamate-ammonia ligase; chromosome 1q31.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   variation       11
FT                   /*tag=  a
FT                   /standard_name= "Single nucleotide polymorphism"
XX
PN   US2002127714-A1.
XX
PD   12-SEP-2002.
XX
PF   14-FEB-2001; 2001US-00782837.
XX
PR   19-MAR-1998;   98US-00045054.
XX
PA   (VARI-) VARIAGENICS INC.
XX
PI   Housman DE,  Ledley FD,  Stanton VP;
XX
DR   WPI; 2003-066906/06.
XX
PT   Inhibitor for treating cancer, is active on allelic form of conditionally
PT   essential gene which has two alternative alleles in a population, and
PT   targets alternative alleles.
XX
PS   Disclosure; Fig 2; 47pp; English.
XX
CC   The invention relates to an inhibitor which is active on an allelic form
CC   of a conditionally essential gene (CEG) comprising at least two
CC   alternative alleles in a population, and where the inhibitor targets at
CC   least one but less than all of the alternative alleles. Also included
CC   are: (1) a method of identifying an inhibitor potentially useful for
CC   treatment of cancer, where the inhibitor is active on CEG, and where the
CC   gene is subject to loss of heterozygosity in a cancer, involves
CC   determining at least two alleles of the gene, testing potential allele
CC   specific inhibitor (AI) to determine whether potential AI is active on
CC   alleles; (2) identifying a potential patient for treatment with an
CC   inhibitor active on alleles of CEG, where the patient is suffering from
CC   cancer, involves: (a) identifying a patient heterozygous for the gene, or
CC   (b) determining whether cancer cells in the patient have undergone loss
CC   of heterozygosity (LOH) of the gene; (3) a nucleic acid probe of at least
CC   12 nucleotides in length which is perfectly complementary to a portion of
CC   a first allelic form of CEG (but not a second), where the portion
CC   comprises a sequence variance site; and (4) selecting a patient for
CC   treatment with an antiproliferative treatment, or selecting an
CC   antiproliferative treatment for a patient suffering from a cancer,
CC   involves determining whether normal somatic cells in a potential patient
CC   are heterozygous for an essential or CEG (which reduces the sensitivity
CC   of the cells to antiproliferative treatment), where a first allelic form
CC   of the gene is more active than a second allelic form, and determining
CC   whether cancer cells of the patient have only the second allelic form of
CC   the gene, where if the somatic cells are heterozygous and the cancer
CC   cells have only the second allelic form, it is indicative that the
CC   patient is suitable for treatment with the antiproliferative treatment or
CC   the antiproliferative treatment is suitable for the patient. The methods
CC   of the invention are useful for preventing development of cancer in a
CC   patient having a precancerous condition, for treating a patient suffering
CC   from a cancer, where the patient is heterozygous for CEG, for inhibiting
CC   growth of a cell (involves subjecting the cell to conditions such that
CC   the gene is essential, and administering at least one inhibitor active on
CC   an allele of CEG). The method inhibits proliferation or kills cells which
CC   have undergone LOH of genes that are not inhibited by the drug and
CC   contain only an allelic form of the essential gene, its RNA transcript,
CC   or its protein product against which the inhibitor is targeted, under the
CC   appropriate altered conditions, recognises more than one linked sequence
CC   variances within a specific allele, and discriminates between two allelic
CC   forms due to a particular single sequence variance between allelic forms
CC   of the target gene. The present sequence shows the sequence surrounding a
CC   polymorphism in an allele of the target gene, glutamate-ammonia ligase
CC   (chromosome 1q31)
XX
SQ   Sequence 21 BP; 14 A; 3 C; 1 G; 2 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 21;
  Best Local Similarity   82.4%;  Pred. No. 5e+03;
  Matches   14;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              || | ||:|||||||||
Db          5 AACATAARAAAAAAAAA 21


RESULT 5217
AAT42561
ID   AAT42561 standard; cDNA; 21 BP.
XX
AC   AAT42561;
XX
DT   14-JAN-1997  (first entry)
XX
DE   3' primer #1087-1107 for DHPS:chloroplast transit peptide fusion protein.
XX
KW   Dihydrodipicolinic acid synthase; DHPS; chloroplast transit peptide; PCR;
KW   chloroplast; maize; L-Lysine; recombinant plant; nutrition; grain crop;
KW   forage plant; clover; fescue; alfalfa; processed plant; tomatoe; lupin;
KW   soyabean; feed; food; food additive; polymerase chain reaction; primer;
KW   amplify; ss.
XX
OS   Synthetic.
XX
PN   US5545545-A.
XX
PD   13-AUG-1996.
XX
PF   27-APR-1993;   93US-00053867.
XX
PR   27-APR-1993;   93US-00053867.
XX
PA   (MINU ) UNIV MINNESOTA.
XX
PI   Sellner JM,  Somers DA,  Bittel DC,  Gengenbach BG,  Shaver JM;
XX
DR   WPI; 1996-383670/38.
XX
PT   DNA encoding maize di:hydro:di:picolinic acid synthase mutant - resistant
PT   to feedback inhibition by lysine.
XX
PS   Example 7; Col 20; 35pp; English.
XX
CC   AAT42552-T42561 represent amplification primers for the recombinant DNA
CC   sequence used in the method of the invention. The method of the invention
CC   is for increasing the level of L-Lysine in a plant. In the method, a
CC   recombinant DNA sequence is introduced into the cells of a plant tissue
```

CC source. The recombinant sequence comprises an altered mature Zea mays
CC dihydrodipicolinic acid (DHPS) sequence (see AAT42547) which is
CC substantially resistant to feedback inhibition by endogenously produced
CC free L-Lysine, and a second sequence which encodes a chloroplast transit
CC sequence (see AAT42549). The DHPS used has at least one amino acid
CC alteration contained within residues 100-125, and is more than 400 times
CC less sensitive to lysine than wild-type DHPS. The chloroplast transit
CC sequence localises the altered mature DHPS in the chloroplasts of the
CC plant cells. The transfected plant cells are then used to generate plants
CC expressing the recombinant DNA in their cells. The plants regenerated
CC from the transformed cells have increased levels of free L-Lysine, which
CC improves their nutritional value. The plants which can be improved by
CC this transformation include maize and other grain crops, forage plants
CC (such as clover, fescue, and alfalfa), and processed plants (such as
CC tomatoes, soyabeans and lupins). The plants can be used directly as feed
CC or food, or the L-Lysine can be extracted for use as a feed or food
CC additive
XX
SQ Sequence 21 BP; 3 A; 7 C; 5 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.4; DB 1; Length 21;
Best Local Similarity 93.3%; Pred. No. 5e+03;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 654 AGAACCTGGGGCTCC 668
||||||||||| ||||
Db 2 AGAACCTGGGCCTCC 16

RESULT 5218
AAZ26403
ID AAZ26403 standard; DNA; 21 BP.
XX
AC AAZ26403;
XX
DT 30-NOV-1999 (first entry)
XX
DE Human polymorphic region 592.
XX
KW Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW cell viability; loss of heterozygosity; precancerous condition; ASI;
KW allele specific inhibitor; somatic cell; diagnosis; prevention;
KW atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS Homo sapiens.
XX
PN WO9841648-A2.
XX
PD 24-SEP-1998.
XX
PF 19-MAR-1998; 98WO-US005419.
XX
PR 20-MAR-1997; 97US-0041057P.
XX
PA (VARI-) VARIAGENICS INC.
XX
PI Housman D, Ledley FD, Stanton VP;
XX
DR WPI; 1998-521232/44.
XX
PT Identifying target genes for allele-specific drugs - used for diagnosis,
PT prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT dysplastic lesions, endometriosis or graft versus host disease.
XX
PS Disclosure; Fig 7; 605pp; English.
XX
CC This invention describes a novel method for identifying an inhibitor
CC potentially useful for treatment of cancer, where the inhibitor is active
CC on a gene vital for cell growth or viability, and where the gene is
CC subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC used for preventing the development of cancer in a patient having a
CC precancerous condition, by administering to the patient a first allele
CC specific inhibitor (ASI) targeted to an allele of a first essential gene
CC present in cells of the precancerous condition, where the normal somatic
CC cells of the patient are heterozygous for the first gene, the inhibitor
CC is active on at least one but less than all allelic forms of the gene
CC present in a population and targets only one allelic form present in the
CC normal somatic cells, and the first gene. The products and methods can be
CC used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC graft versus host disease. The method can also be used to remove
CC malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC human polymorphic sites described in the method of the invention
XX
SQ Sequence 21 BP; 12 A; 2 C; 0 G; 7 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.4; DB 1; Length 21;
Best Local Similarity 93.3%; Pred. No. 5e+03;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAAA 2797
|| |||||||||||
Db 7 TTTAAAAAAAAAAAA 21

RESULT 5219
ABA04964/c
ID ABA04964 standard; DNA; 24 BP.
XX
AC ABA04964;
XX
DT 01-MAR-2002 (first entry)
XX
DE Human FD14 PCR primer #1.
XX
KW Human; FD14; tumour; embryo maldevelopment; tissue; cytostatic;
KW immunodeficiency disease; immune disease; immunomodulatory; gene therapy;
KW PCR primer; ss.
XX
OS Homo sapiens.
XX
PN CN1312286-A.
XX
PD 12-SEP-2001.
XX
PF 07-MAR-2000; 2000CN-00111937.
XX
PR 07-MAR-2000; 2000CN-00111937.
XX
PA (BODE-) BODE GENE DEV CO LTD SHANGHAI.
XX
PI Mao Y, Xie Y;
XX
DR WPI; 2002-018504/03.
XX
PT Human FD14 polypeptides and polynucleotides encoding it.
XX
PS Example 2; Page 16 (Disclosure); 32pp; Chinese.
XX
CC The present invention relates to human FD14 (AAM47799). FD14 and its
CC coding sequence are useful for treating several diseases, such as
CC malignant tumours, embryo and tissue maldevelopment, immunodeficiency
CC diseases, various acquired and hereditary disease and immune disease. The
CC present sequence is a PCR primer, which was used in an example from the
CC present invention
XX
SQ Sequence 24 BP; 0 A; 6 C; 16 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.4; DB 1; Length 24;
Best Local Similarity 73.9%; Pred. No. 5.4e+03;
Matches 17; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 409 AGCGTACGCCGCCGCCATCAACC 431

```
                |||   ||||||||||  || ||
Db         23 AGCCGCCGCCGCCGCCGCCACCC 1


RESULT 5220
AAC96197/c
ID   AAC96197 standard; DNA; 25 BP.
XX
AC   AAC96197;
XX
DT   26-FEB-2001  (first entry)
XX
DE   16s rRNA gene PCR primer #164.
XX
KW   DNA sequence analysis; sequencing; protein sequence; protein structure;
KW   gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW   human leukocyte antigen; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200065088-A2.
XX
PD   02-NOV-2000.
XX
PF   20-APR-2000; 2000WO-EP003636.
XX
PR   26-APR-1999;   99EP-00303215.
XX
PA   (AMSH ) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI   Ulfendahl P,  Wong K;
XX
DR   WPI; 2000-679677/66.
XX
PT   Identifying extendible primers for use in identification, or
PT   classification of a nucleic acid of an organism, allele or gene such as
PT   class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT   specific length.
XX
PS   Claim 14; Page 47; 66pp; English.
XX
CC   The present invention provides a method for identifying a set of
CC   extendible primers which can be used in the identification, typing and
CC   classification of genes. This can then be used to predict protein
CC   sequence and structure, in organ donation to match the organ with the
CC   receiver, and to identify bacteria in a sample. The method can be used to
CC   type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC   particular
XX
SQ   Sequence 25 BP; 5 A; 1 C; 5 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 25;
  Best Local Similarity   93.3%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAA 2797
              | ||||||||||||||
Db         15 TCGAAAAAAAAAAAA 1


RESULT 5221
ABS75770
ID   ABS75770 standard; DNA; 25 BP.
XX
AC   ABS75770;
XX
DT   27-DEC-2002  (first entry)
XX
DE   Human PAPP-Ea associated 25-mer SEQ ID 1296.
XX
KW   PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW   contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW   dysgenetic pregnancy; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002102252-A1.
XX
PD   01-AUG-2002.
XX
PF   06-APR-2001; 2001US-00827998.
XX
PR   26-MAY-2000; 2000US-0207456P.
XX
PA   (GUYY/) GU Y.
PA   (SHAN/) SHANNON M E.
XX
PI   Gu Y,  Shannon ME;
XX
DR   WPI; 2002-697817/75.
XX
PT   New isolated nucleic acid encoding an isoform of human pregnancy
PT   associated plasma protein E, for preventing or aborting pregnancy.
XX
PS   Example 2; Page 245; 353pp; English.
XX
CC   This invention describes a novel isolated nucleic acid that encodes one
CC   of three new isoforms of human pregnancy associated plasma protein E,
CC   hPAPP-E. The products of the invention have abortive and contraceptive
CC   activity and can be used for gene therapy or in a vaccine. The nucleic
CC   acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC   used in pharmaceutical compositions or vaccines for preventing or
CC   aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC   dysgenetic pregnancies. The nucleic acids are used as probes to assess
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 25 BP; 16 A; 0 C; 9 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.4;  DB 1;  Length 25;
  Best Local Similarity   73.9%;  Pred. No. 5.4e+03;
  Matches   17;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAAAAA 2801
              ||||  |   |||||||||| |||
Db          2 AGAAGGGGGGAAAAAAAAAGAAA 24


RESULT 5222
AAX87332/c
ID   AAX87332 standard; DNA; 18 BP.
XX
AC   AAX87332;
XX
DT   27-SEP-1999  (first entry)
XX
DE   Reverse transcription primer P1.
XX
KW   SAG gene; sensitive to apoptosis; mouse; cancer; tumour;
KW   neurodegenerative disease; muscular dystrophy; wound healing; vulnerary;
KW   therapy; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9932514-A2.
XX
PD   01-JUL-1999.
XX
PF   15-DEC-1998;   98WO-US026705.
XX
PR   19-DEC-1997;   97US-0068179P.
PR   11-SEP-1998;   98US-0099840P.
XX
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```
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Sun Y;
XX
DR   WPI; 1999-430152/36.
XX
PT   SAG: Sensitive to Apoptosis Gene and related proteins, useful for
PT   promoting cell growth and protecting cells against apoptosis.
XX
PS   Example 1; Page 14; 84pp; English.
XX
CC   This primer was used for reverse transcription of RNA isolated from mouse
CC   tumour lines L-RT101 (epidermal tumour cell line) and H-Tx (spontaneously
CC   transformed liver line). It was also used as the reverse primer in PCR
CC   amplification of the resulting cDNA. Primers P1 and P2 (see AAX87333)
CC   reproducibly detected differential expression of a gene between 1,10-
CC   phenanthroline (OP)-treated and OP-nontreated L-RT101 and H-Tx cells. An
CC   OP-inducible clone was used as a probe to isolate a full-length clone
CC   (see AAX87313) corresponding to the mouse sensitive to apoptosis gene
CC   (SAG). SAG is a redox-sensitive, haem-binding protein domain that
CC   promotes cell growth, protects cells from apoptosis, scavenges oxygen
CC   radicals and can be used for the reversion of a tumour phenotype
XX
SQ   Sequence 18 BP; 2 A; 1 C; 1 G; 13 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   92.9%;  Pred. No. 4.3e+03;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              :||||||||||||
Db         18 BAAAAAAAAAAAAA 5


RESULT 5223
AAX15198/c
ID   AAX15198 standard; DNA; 18 BP.
XX
AC   AAX15198;
XX
DT   25-MAR-2003  (revised)
DT   28-APR-1999  (first entry)
XX
DE   Triple helix forming oligonucleotide.
XX
KW   Double-stranded DNA; triple helix; quinoline;
KW   quinazoline-based structure; hydrogen bonding; ss.
XX
OS   Synthetic.
XX
PN   WO9623777-A1.
XX
PD   08-AUG-1996.
XX
PF   29-JAN-1996;   96WO-US001473.
XX
PR   01-FEB-1995;   95US-00384324.
XX
PA   (UYNE-) UNIV NEBRASKA.
XX
PI   Gold BI;
XX
DR   WPI; 1996-371338/37.
XX
PT   New substd. quinoline and quinazoline cpds. - are monomers for triple
PT   helix-forming oligo:nucleotide analogues useful e.g. for treating tumours
PT   or viral infection.
XX
PS   Disclosure; Fig 2; 102pp; English.
XX
CC   The present sequence represents a triple helix forming oligonucleotide
CC   that form a triple helix with the double-stranded DNA sequence described
CC   in AAX15197. The specification describes novel monomeric compositions
CC   which are substituted quinoline or quinazoline-based structures capable
CC   of hydrogen bonding specifically with interstrand purine-pyrimidine pairs
CC   in a double stranded Watson-Crick DNA molecule to form a triple-helix.
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 18 BP; 0 A; 3 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAA 2803
              ||| |||||||| ||| |
Db         18 AAAGAAAAAAAAGAAAGA 1


RESULT 5224
AAX15196
ID   AAX15196 standard; DNA; 18 BP.
XX
AC   AAX15196;
XX
DT   25-MAR-2003  (revised)
DT   28-APR-1999  (first entry)
XX
DE   Triple helix forming oligonucleotide.
XX
KW   Double-stranded DNA; triple helix; quinoline;
KW   quinazoline-based structure; hydrogen bonding; ss.
XX
OS   Synthetic.
XX
PN   WO9623777-A1.
XX
PD   08-AUG-1996.
XX
PF   29-JAN-1996;   96WO-US001473.
XX
PR   01-FEB-1995;   95US-00384324.
XX
PA   (UYNE-) UNIV NEBRASKA.
XX
PI   Gold BI;
XX
DR   WPI; 1996-371338/37.
XX
PT   New substd. quinoline and quinazoline cpds. - are monomers for triple
PT   helix-forming oligo:nucleotide analogues useful e.g. for treating tumours
PT   or viral infection.
XX
PS   Disclosure; Fig 1; 102pp; English.
XX
CC   The present sequence represents a triple helix forming oligonucleotide
CC   that form a triple helix with the double-stranded DNA sequence described
CC   in AAX15195. The specification describes novel monomeric compositions
CC   which are substituted quinoline or quinazoline-based structures capable
CC   of hydrogen bonding specifically with interstrand purine-pyrimidine pairs
CC   in a double stranded Watson-Crick DNA molecule to form a triple-helix.
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 18 BP; 0 A; 3 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTT 2183
              |||| |||||| |||| |
Db          1 TTTTCTTTTTTCTTTTCT 18


RESULT 5225
ABS52682
```

```
ID   ABS52682 standard; DNA; 18 BP.
XX
AC   ABS52682;
XX
DT   15-NOV-2002  (first entry)
XX
DE   mRNA display splint oligonucleotide.
XX
KW   Translation; ss; splint; cell-free translation system; insulin;
KW   growth hormone; erythropoietin; ribosome display; mRNA display.
XX
OS   Synthetic.
XX
PN   WO200259293-A2.
XX
PD   01-AUG-2002.
XX
PF   25-JAN-2002; 2002WO-US002344.
XX
PR   25-JAN-2001; 2001US-0264147P.
XX
PA   (FORS/) FORSTER A C.
PA   (BLAC/) BLACKLOW S C.
XX
PI   Forster AC,  Blacklow SC;
XX
DR   WPI; 2002-608454/65.
XX
PT   A new reconstituted cell-free translation system comprising translation
PT   factors and tRNA species capable of translating exogenously added mRNAs,
PT   useful for the synthesis of peptides or protein ligands or catalysts,
PT   e.g. insulin.
XX
PS   Disclosure; Page 15; 83pp; English.
XX
CC   This invention relates to a novel reconstituted cell-free translation
CC   system comprising translation factors and transfer ribonucleic acid
CC   (tRNA) species which translate exogenously added messenger RNA (mRNA)
CC   with highly selective incorporation at each codon to form a peptide or a
CC   peptidomimetic product when the system includes one or more tRNA species
CC   charged with a synthetic amino acid or amino acid analogue. The
CC   translation system of the invention is useful for the synthesis of
CC   peptide or protein ligands or catalysts, such as insulin, growth hormone
CC   or erythropoietin, and for pure ribosome display and pure mRNA display
CC   selection experiments. The translation process provides a simplified,
CC   highly purified system that offers potentially improved routes to all
CC   peptides and proteins currently synthesised by alternative routes. This
CC   overcomes the limitations of the prior art, e.g. difficulty in
CC   maintaining purified components and trace contaminants or inefficient
CC   processivity. There are several advantages associated with performing
CC   peptide and protein display in a pure system, such as an expected lack of
CC   post-translational modification of peptides, lack of proteases which
CC   often cause protein degradation problem and a lack of competition from
CC   contaminants in the selection steps. The present sequence represents a
CC   splint oligonucleotide used in the mRNA display method used in the
CC   invention
XX
SQ   Sequence 18 BP; 4 A; 2 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 4.3e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2172 TTTTTTTTTTTTTTTAAC 2189
              ||||||||||  || |||
Db          1 TTTTTTTTTTAATTCAAC 18


RESULT 5226
ABK98126
ID   ABK98126 standard; DNA; 18 BP.
XX
AC   ABK98126;
XX
DT   07-OCT-2002  (first entry)
XX
DE   Triple helix forming associated oligonucleotide #15.
XX
KW   Triple-helix formation; purine-rich target sequence; double-helix DNA;
KW   gene expression; regulatory sequence; pathogenic double-stranded DNA;
KW   pathogenic bacteria; virus; replication; virulence; cancer;
KW   oncogene suppression; cancerous cell; cytostatic; antimicrobial; ss.
XX
OS   Synthetic.
XX
PN   US6403302-B1.
XX
PD   11-JUN-2002.
XX
PF   16-DEC-1993;   93US-00168920.
XX
PR   17-SEP-1992;   92US-00946976.
XX
PA   (CALY ) CALIFORNIA INST OF TECHNOLOGY.
XX
PI   Dervan PB,  Beal PA;
XX
DR   WPI; 2002-536030/57.
XX
PT   A triple-helix comprising a double helical nucleic acid (DHNA) and an
PT   oligonucleotide which binds in parallel and antiparallel orientation,
PT   respectively, for targetting sequences on alternate strands of DHNA to
PT   control gene expression.
XX
PS   Example 7; Col 41; 108pp; English.
XX
CC   The present invention relates to methods and oligonucleotides for forming
CC   a triple-helix comprising a double helical nucleic acid comprising first
CC   and second substantially complementary strands, and an oligonucleotide
CC   bound to a purine-rich target sequence within the double helical nucleic
CC   acid, where the oligonucleotide binds in a parallel and antiparallel
CC   orientation, respectively, to target sequences on alternate strands of
CC   the double helical nucleic acid. The method has therapeutic applications,
CC   where gene expression is controlled by selective triple-helix formation
CC   within expression regulatory sequences of a target gene. The
CC   oligonucleotides can be used to form triple-helices, and are useful to
CC   detect the presence or absence of specific sequences within genomic DNA
CC   for diagnostic and therapeutic purposes. The oligonucleotides can be
CC   selected to specifically bind to pathogenic double-stranded DNA including
CC   specific sequences required by pathogenic bacteria or viruses for
CC   replication or virulence, reducing their pathogenicity. Alternatively,
CC   the oligonucleotide can be chosen to target a unique sequence of the
CC   pathogen which is not found in the genome of pathogen's host. The
CC   oligonucleotides can be used in cancer treatment by way of triple-helix
CC   suppression of specific oncogenes including those of endogenous or viral
CC   origin. Such therapeutic oligonucleotides are capable of forming triple-
CC   helices with such sequences in cancerous cells containing the activated
CC   oncogene, so preferentially killing or repressing the cancer causing
CC   cell. The present sequence represents an oligonucleotide used in the
CC   methods of the present invention
XX
SQ   Sequence 18 BP; 0 A; 2 C; 0 G; 14 T; 0 U; 2 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   77.8%;  Pred. No. 4.3e+03;
  Matches   14;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTT 2183
              |||:|||| |:||||| |
Db          1 TTTDTTTTCTDTTTTTCT 18


RESULT 5227
AAQ20030/c
ID   AAQ20030 standard; DNA; 19 BP.
XX
```

```
AC   AAQ20030;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 116 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
PH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   misc_feature    14. .19
FT                   /*tag=  c
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   18
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   19
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine group. See also AAQ20026-Q20029
XX
SQ   Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAA 2800
                || || ||||||||| ||
Db         19 TTAAATAAAAAAAAATAA 2


RESULT 5228
AAQ30373/c
ID   AAQ30373 standard; DNA; 19 BP.
XX
AC   AAQ30373;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 113 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   misc_feature    13. .14
FT                   /*tag=  g
FT                   /note= "o-xyloso dimer synthon linkage"
FT   misc_feature    14. .19
FT                   /*tag=  f
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   18
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   19
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
```

```
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 19 BP; 5 A; 0 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAA 2800
              || || ||||||||| ||
Db         19 TTAAATAAAAAAAAATAA 2


RESULT 5229
AAQ30376/c
ID   AAQ30376 standard; DNA; 19 BP.
XX
AC   AAQ30376;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 116 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N4 N4 ethanocytosine"
FT   modified_base    4
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   misc_feature     13. .14
FT                    /*tag=  g
FT                    /note= "o-xyloso dimer synthon linkage"
FT   misc_feature     14. .19
FT                    /*tag=  f
FT                    /label= inverted_polarity_region
FT                    /note= "see comments"
FT   modified_base    14
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    18
FT                    /*tag=  d
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    19
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAAAA 2800
              || || ||||||||| ||
Db         19 TTAAATAAAAAAAAATAA 2


RESULT 5230
ABA97625
ID   ABA97625 standard; DNA; 19 BP.
XX
AC   ABA97625;
XX
DT   11-APR-2002  (first entry)
XX
DE   Probe d.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
```

XX
PN JP2001286300-A.
XX
PD 16-OCT-2001.
XX
PF 20-APR-2000; 2000JP-00120097.
XX
PR 20-APR-1999; 99JP-00111601.
PR 24-AUG-1999; 99JP-00236666.
PR 30-AUG-1999; 99JP-00242693.
PR 01-FEB-2000; 2000JP-00028896.
XX
PA (BIOI-) BIOINDUSTRY KYOKAI SH.
PA (KANK-) KANKYO ENG KK.
PA (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR WPI; 2002-134193/18.
XX
PT Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT the obtained data.
XX
PS Example 5; Page 17; 34pp; Japanese.
XX
CC This invention relates to a method for measuring nucleic acids using a
CC nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC decreases the fluorescence of the fluorochrome when hybridised with a
CC target nucleic acid, the decrease in the fluorescence is measured. The
CC method can be used for measuring a target nucleic acid
XX
SQ Sequence 19 BP; 15 A; 0 C; 0 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 19;
Best Local Similarity 83.3%; Pred. No. 4.7e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2782 ATTGAAAAAAAAAAAAAA 2799
|| | ||||||||||||
Db 2 ATATATAAAAAAAAAAAA 19

RESULT 5231
ADE27307/c
ID ADE27307 standard; RNA; 19 BP.
XX
AC ADE27307;
XX
DT 29-JAN-2004 (first entry)
XX
DE Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:251.
XX
KW short interfering nucleic acid; siNA; downregulation; inhibition; SCD;
KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
KW atherosclerosis; cancer; viral infection; drug screening;
KW genetic engineering; pharmacogenomic; gene mapping; ss.
XX
OS Synthetic.
XX
PN WO2003070885-A2.
XX
PD 28-AUG-2003.
XX
PF 13-FEB-2003; 2003WO-US004317.
XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 20-SEP-2002; 2002US-0412304P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J, Beigelman L, Thompson J;
XX
DR WPI; 2003-721687/68.
XX
PT New short interfering nucleic acid, useful e.g. for treatment and
PT diagnosis of obesity or diabetes, downregulates expression of the
PT stearoyl-CoA desaturase gene.
XX
PS Example 3; SEQ ID NO 251; 139pp; English.
XX
CC The present invention describes a short interfering nucleic acid (siNA)
CC that downregulates expression of the SCD (stearoyl-CoA desaturase) gene
CC by RNA interference. Also described: (1) modulating expression of SCD
CC genes in cells, tissue explants or organisms by introduction of siNA; (2)
CC kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or
CC complexes of siNA; and (4) vectors that express siNA. SCD inhibiting
CC siNAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and
CC virucide activities. The siNAs can be used to modulate expression of SCD
CC genes, in cells, tissue explants or organisms, e.g. for treating obesity;
CC diabetes (types I and II); atherosclerosis; cancer and viral infections.
CC They can also be used for drug screening; diagnosis; target
CC identification and validation; genetic engineering; pharmacogenomics;
CC studying gene function and gene mapping (e.g. of single-nucleotide
CC polymorphisms). The present sequence represents an SCD siNA, which is
CC used in the exemplification of the present invention.
XX
SQ Sequence 19 BP; 1 A; 0 C; 3 G; 0 T; 15 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 19;
Best Local Similarity 83.3%; Pred. No. 4.7e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2781 AATTGAAAAAAAAAAAAA 2798
|| ||||||||||||||
Db 18 AACCCAAAAAAAAAAAAA 1

RESULT 5232
ADE27597
ID ADE27597 standard; RNA; 19 BP.
XX
AC ADE27597;
XX
DT 29-JAN-2004 (first entry)
XX
DE Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:541.
XX
KW short interfering nucleic acid; siNA; downregulation; inhibition; SCD;
KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
KW atherosclerosis; cancer; viral infection; drug screening;
KW genetic engineering; pharmacogenomic; gene mapping; ss.
XX
OS Synthetic.
XX
PN WO2003070885-A2.
XX
PD 28-AUG-2003.
XX
PF 13-FEB-2003; 2003WO-US004317.
XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 20-SEP-2002; 2002US-0412304P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.

```
XX
PI   Mcswiggen J,  Beigelman L,  Thompson J;
XX
DR   WPI; 2003-721687/68.
XX
PT   New short interfering nucleic acid, useful e.g. for treatment and
PT   diagnosis of obesity or diabetes, downregulates expression of the
PT   stearoyl-CoA desaturase gene.
XX
PS   Example 3; SEQ ID NO 541; 139pp; English.
XX
CC   The present invention describes a short interfering nucleic acid (siNA)
CC   that downregulates expression of the SCD (stearoyl-CoA desaturase) gene
CC   by RNA interference. Also described: (1) modulating expression of SCD
CC   genes in cells, tissue explants or organisms by introduction of siNA; (2)
CC   kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or
CC   complexes of siNA; and (4) vectors that express siNA. SCD inhibiting
CC   siNAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and
CC   virucide activities. The siNAs can be used to modulate expression of SCD
CC   genes, in cells, tissue explants or organisms, e.g. for treating obesity;
CC   diabetes (types I and II); atherosclerosis; cancer and viral infections.
CC   They can also be used for drug screening; diagnosis; target
CC   identification and validation; genetic engineering; pharmacogenomics;
CC   studying gene function and gene mapping (e.g. of single-nucleotide
CC   polymorphisms). The present sequence represents an SCD siNA, which is
CC   used in the exemplification of the present invention.
XX
SQ   Sequence 19 BP; 15 A; 3 C; 0 G; 0 T; 1 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAAA 2798
              ||   ||||||||||||
Db          2 AACCCAAAAAAAAAAAAA 19


RESULT 5233
AAQ20028/c
ID   AAQ20028 standard; DNA; 19 BP.
XX
AC   AAQ20028;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 114 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base    4
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   misc_feature     14. .19
FT                    /*tag=  c
FT                    /label= inverted_polarity_region
FT                    /note= "see comments"
FT   modified_base    14
FT                    /*tag=  d
FT                    /mod_base= OTHER
FT                    /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base    18
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base    19
FT                    /*tag=  f
FT                    /mod_base= OTHER
FT                    /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine group. See also AAQ20026-Q20030
XX
SQ   Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              | ||| |||||||||  ||
Db         19 GTAAATAAAAAAAAATAA 2


RESULT 5234
AAQ20029/c
ID   AAQ20029 standard; DNA; 19 BP.
XX
AC   AAQ20029;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 115 for targetting HUMIL1B.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group; IL-1;
KW   aziridinylcytosine; cross-linking group; o-xyloso linking group;
KW   human interleukin-1 beta; inverted polarity region; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "N4N4-ethanocytosine"
FT   modified_base    4
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   misc_feature     14. .19
FT                    /*tag=  c
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FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   18
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   19
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 4; Page 25; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an o-
CC   xyloso dimer synthon. Residues 13 and 14 are linked via an o-xyloso group
CC   (i.e. nucleotides that have xylose sugar linked via the o-xylene ring).
CC   The sequence is designed to target the Human interleukin-1 beta gene
CC   beginning at nucleotide 7378 and will covalently cross-link to it via the
CC   N4N4-ethanocytosine groups. See also AAQ20026-Q20030
XX
SQ   Sequence 19 BP; 3 A; 2 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAA 2802
              | ||| ||||||||| ||
Db         19 GTAAATAAAAAAAAATAA 2

RESULT 5235
AAQ30375/c
ID   AAQ30375 standard; DNA; 19 BP.
XX
AC   AAQ30375;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 115 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N4 N4 ethanocytosine"
FT   modified_base   4
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   misc_feature    13. .14
FT                   /*tag=  g
FT                   /note= "o-xyloso dimer synthon linkage"
FT   misc_feature    14. .20
FT                   /*tag=  f
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   14
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   18
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   19
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N4 N4 ethanocytosine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 19 BP; 3 A; 2 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;
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```
Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                | ||| |||||||||| ||
Db         19 GTAAATAAAAAAAAAATAA 2

RESULT 5236
AAQ30374/c
ID   AAQ30374 standard; DNA; 19 BP.
XX
AC   AAQ30374;
XX
DT   25-MAR-2003  (revised)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 114 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW   RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    4
FT                    /*tag=  b
FT                    /mod_base= m5c
FT   misc_feature     13. .14
FT                    /*tag=  g
FT                    /note= "o-xyloso dimer synthon linkage"
FT   misc_feature     14. .20
FT                    /*tag=  f
FT                    /label= inverted_polarity_region
FT                    /note= "see comments"
FT   modified_base    14
FT                    /*tag=  c
FT                    /mod_base= m5c
FT   modified_base    18
FT                    /*tag=  d
FT                    /mod_base= m5c
FT   modified_base    19
FT                    /*tag=  e
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N4 N4 ethanocytosine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US008811.
XX
PR   23-NOV-1990;   90US-00617907.
PR   18-JAN-1991;   91US-00643382.
PR   08-APR-1991;   91US-00683420.
PR   17-APR-1991;   91US-00686544.
PR   17-APR-1991;   91US-00686546.
PR   17-APR-1991;   91US-00686547.
PR   27-SEP-1991;   91US-00766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 19 BP; 4 A; 1 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                | ||| |||||||||| ||
Db         19 GTAAATAAAAAAAAAATAA 2


RESULT 5237
AAT49298/c
ID   AAT49298 standard; RNA; 19 BP.
XX
AC   AAT49298;
XX
DT   27-AUG-2003  (revised)
DT   27-AUG-1997  (first entry)
XX
DE   5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW   Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW   electrophoresis; substrate cleavage; ss.
XX
OS   Alfalfa mosaic virus.
XX
PN   WO9640993-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008320.
XX
PR   07-JUN-1995;   95US-00487759.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-052364/05.
XX
PT   Detection of influenza virus endonuclease in a sample - by cleavage of an
PT   RNA substrate to generate a primer for a labelled polymerase extension
PT   reaction.
XX
PS   Claim 6; Page 12; 28pp; English.
XX
CC   This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA. This
CC   sequence was used as a substrate for influenza endonuclease in the method
CC   of the invention. The method allows detection of influenza endonuclease
CC   activity in a sample and comprises: (a) adding an influenza endonuclease
CC   substrate to a sample to generate an RNA product; (b) hybridising the RNA
CC   prod. with a DNA template which comprises a first segment complementary
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CC   to the RNA and a 5' extension of at least one nucleotide attached to the
CC   5' end of the DNA segment, such that a DNA:RNA hybrid is formed; (c)
CC   adding a DNA polymerase and labelled mononucleotides such that the DNA
CC   polymerase incorporates the mononucleotides to the 3' end of the RNA in
CC   the RNA:DNA duplex; and (d) measuring the amount of labelled hybrid prod.
CC   as a measure of the amount of influenza endonuclease activity. The method
CC   is used to quantitate the amount of influenza endonuclease by cleaving
CC   the RNA substrate which then forms a primer for extension by a DNA
CC   polymerase on a template. The assay does not involve an electrophoresis
CC   step and thus may be run in a 96-well microtitre plate. The assay also
CC   monitors substrate cleavage at the correct position thereby
CC   discriminating against non-specific cleavage products. (Updated on 27-AUG
CC   -2003 to correct OS field.)
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2


RESULT 5238
AAT74905/c
ID   AAT74905 standard; RNA; 19 BP.
XX
AC   AAT74905;
XX
DT   27-AUG-2003  (revised)
DT   27-AUG-1997  (first entry)
XX
DE   5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW   Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW   electrophoresis; substrate cleavage; ss.
XX
OS   Alfalfa mosaic virus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= Triphosphorylated-G
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-OMe-U
XX
PN   WO9640994-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008330.
XX
PR   07-JUN-1995;   95US-00487760.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-052365/05.
XX
PT   Detection of enzyme pref. endonuclease or ribozyme, in a sample - by
PT   cleavage of an RNA substrate to generate a primer for a labelled
PT   polymerase extension reaction.
XX
PS   Example; Page 14; 34pp; English.
XX
CC   This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA. This
CC   sequence was used in the method of the invention for detecting the enzyme
CC   activity in a sample. The method comprises: (a) adding an oligonucleotide
CC   substrate to a sample to generate an oligonucleotide product; (b)
CC   hybridising the oligonucleotide prod. with a DNA template which comprises
CC   a first segment complementary to the oligonucleotide and a 5' extension
CC   of at least one nucleotide attached to the 5' end of the DNA segment,
CC   such that a DNA:RNA hybrid or a DNA:DNA duplex is formed; (c) adding a
CC   DNA polymerase and labelled mononucleotides such that the DNA polymerase
CC   incorporates the mononucleotides to the 3' end of the oligonucleotide;
CC   and (d) measuring the amt. of labelled hybrid prod. as a measure of the
CC   amt. of the enzyme activity in the sample. The method is used to assay
CC   for enzymes e.g. endonuclease, exonuclease or ribozymes, that act on
CC   substrates to generate single stranded oligonucleotide prods. by cleaving
CC   the substrate which then forms a primer for extension by a DNA polymerase
CC   on a template. It can be used to identify the position where the enzyme
CC   cleaves the substrate. The assay can also be used to screen for
CC   inhibitors of these enzymes. (Updated on 27-AUG-2003 to correct OS
CC   field.)
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2


RESULT 5239
AAT47271/c
ID   AAT47271 standard; RNA; 19 BP.
XX
AC   AAT47271;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #5.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   6
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base   12
FT                   /*tag=  d
FT                   /mod_base= 2'-deoxy-2'-fluoro-uridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
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```
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5240
AAT47276/c
ID   AAT47276 standard; RNA; 19 BP.
XX
AC   AAT47276;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #8.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5241
AAT47269/c
ID   AAT47269 standard; RNA; 19 BP.
XX
AC   AAT47269;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #3.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    13
FT                    /*tag=  c
FT                    /mod_base= 2'-deoxyadenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
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```
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2


RESULT 5242
AAT47279/c
ID   AAT47279 standard; RNA; 19 BP.
XX
AC   AAT47279;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #11.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    12
FT                    /*tag=  c
FT                    /mod_base= phosphorothioated
FT   modified_base    13
FT                    /*tag=  d
FT                    /mod_base= phosphorothioated
FT   modified_base    14
FT                    /*tag=  e
FT                    /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2


RESULT 5243
AAT47277/c
ID   AAT47277 standard; RNA; 19 BP.
XX
AC   AAT47277;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #9.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    3
FT                    /*tag=  c
FT                    /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
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CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                  |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5244
AAT47273/c
ID   AAT47273 standard; RNA; 19 BP.
XX
AC   AAT47273;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #7.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   misc_feature     19
FT                    /*tag=  c
FT                    /note= "biotin labelled for attachment to solid support"
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                  |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5245
AAT47264/c
ID   AAT47264 standard; RNA; 19 BP.
XX
AC   AAT47264;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 12; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
```

```
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5246
AAT47272/c
ID   AAT47272 standard; RNA; 19 BP.
XX
AC   AAT47272;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #6.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    6
FT                    /*tag=  c
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base    12
FT                    /*tag=  d
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base    13
FT                    /*tag=  e
FT                    /mod_base= 2'-deoxy-2'-fluoro-adenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5247
AAT47278/c
ID   AAT47278 standard; RNA; 19 BP.
XX
AC   AAT47278;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #10.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    13
FT                    /*tag=  c
FT                    /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
```

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CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                ||||| ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5248
AAT47267/c
ID   AAT47267 standard; RNA; 19 BP.
XX
AC   AAT47267;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #1.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
                ||||| ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5249
AAT47270/c
ID   AAT47270 standard; RNA; 19 BP.
XX
AC   AAT47270;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #4.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    13
FT                    /*tag=  c
FT                    /mod_base= 2'-deoxy-2'-fluoro-adenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease.
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA or
CC   RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC   mono-, di- or triphosphate, which is then capped. The presence of the cap
CC   is important for mRNA maturation, initiation of translation, and protects
CC   the mRNA against various RNases present in the cell. The capped RNA or
CC   analogue is an influenza endonuclease aptamer, useful for treating or
```

```
CC   preventing an influenza infection in an animal. The synthetic capped RNA
CC   are substrates for virally encoded endonuclease associated with influenza
CC   virus. The short non-extendible (due to their length or because of the
CC   modification of the 3' end of the oligo) RNA molecules are potent
CC   inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC   may be used to investigate viral and cellular mechanisms of
CC   transcription/translation, or mRNA maturation
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 19;
  Best Local Similarity   83.3%;  Pred. No. 4.7e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAA 2802
              |||||  ||||| |||||
Db         19 GAAAATTAAAAATAAAAA 2

RESULT 5250
ABA91534
ID   ABA91534 standard; DNA; 20 BP.
XX
AC   ABA91534;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02022 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    12
FT                   /*tag=  a
FT                   /note= "mismatch to target DNA"
FT   misc_feature    13
FT                   /*tag=  b
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 5; Page 50; 72pp; English.
XX
CC   The present sequence is that of oligonucleotide AGT02022, which contains
CC   a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC   one of a set of oligonucleotides (see ABA91532-37) containing
CC   mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC   H cleavage assay. The results showed that 2 mismatches between the target
CC   and the probe ablated RNase H cleavage. The invention provides probes for
CC   nucleic acid hybridisation. The probes form a hairpin structure
CC   comprising a double-stranded stem and a single-stranded loop, and are
CC   capable of both intramolecular and intermolecular hybridisation. The
CC   double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC   is resistant to RNase H cleavage. When the probe hybridises with a target
CC   DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC   treatment and can be removed. Arrays and methods for nucleic acid
CC   hybridisation using the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1514 AAATAAAATTGGAACGAA 1531
              ||| ||||||||||  ||
Db          2 AAAAAAAATTGGAAAAAA 19


RESULT 5251
ABZ85667/c
ID   ABZ85667 standard; DNA; 20 BP.
XX
AC   ABZ85667;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 909; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
```

CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 0 A; 5 C; 0 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAA 2803
||||||| ||| ||| |
Db 20 AAAAAAAAGAAAGAAAGA 3

RESULT 5252
ABZ90373
ID ABZ90373 standard; DNA; 20 BP.
XX
AC ABZ90373;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5615; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,

CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 14 A; 2 C; 2 G; 2 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAAAAAA 2800
| |||||| |||| ||||
Db 3 TAGAAAAACAAAACAAAA 20

RESULT 5253
AAQ30371
ID AAQ30371 standard; DNA; 20 BP.
XX
AC AAQ30371;
XX
DT 25-MAR-2003 (revised)
DT 07-DEC-1992 (first entry)
XX
DE Oligomer HUM beta 111 for forming triplex with IL-1 target duplex.
XX
KW Human interleukin - 1 beta gene; herpes simplex; AIDS; modified; HIV;
KW RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 1
FT /*tag= a
FT /mod_base= OTHER
FT /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT modified_base 4
FT /*tag= b
FT /mod_base= m5c
FT misc_feature 13. .14
FT /*tag= g
FT /note= "o-xyloso dimer synthon linkage"
FT misc_feature 14. .20
FT /*tag= f
FT /label= inverted_polarity_region
FT /note= "see comments"
FT modified_base 14
FT /*tag= c
FT /mod_base= m5c
FT modified_base 18
FT /*tag= d
FT /mod_base= m5c
FT modified_base 19
FT /*tag= e
FT /mod_base= OTHER
FT /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
XX
PN WO9209705-A1.
XX
PD 11-JUN-1992.
XX
PF 25-NOV-1991; 91WO-US008811.
XX
PR 23-NOV-1990; 90US-00617907.
PR 18-JAN-1991; 91US-00643382.
PR 08-APR-1991; 91US-00683420.
PR 17-APR-1991; 91US-00686544.
PR 17-APR-1991; 91US-00686546.
PR 17-APR-1991; 91US-00686547.
PR 27-SEP-1991; 91US-00766733.
XX
PA (GILE-) GILEAD SCI INC.

```
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with G-C
PT   doublet in a DNA duplex, for treating and diagnosing HIV, hepatitis,
PT   herpes malignancy and inflammation.
XX
PS   Claim 12; Page 70; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at physiological
CC   pH with a purine rich target sequence by coupling into the major groove
CC   of the duplex. The specific target sequence of this oligomer is the human
CC   interleukin -1 beta gene beginning at nucleotide 7378 contg. a purine
CC   rich sequence concd. on one strand of the duplex. The oligomer, and
CC   others like it are useful in diagnosis and therapy of diseases
CC   characterised by specific DNA duplex targets, e.g. HPV; HER; HIV,
CC   hepatitis B, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried out without
CC   subjecting the test specimen to harsh conditions. The oligomer contains
CC   an inverted polarity region formed from an o-xyloso dimer synthon. The
CC   linking gp. is o-xyloso (nucleotides have the 3' positions of xylose
CC   sugars linked via the o-xylene ring). Two nucleotides are coupled through
CC   a xylene residue to form the dimer synthon. This additional modifications
CC   may render the oligomer stable to nuclease activity. The oligomer is able
CC   to inhibit gene expression, as verified by in vitro systems. See also
CC   AAQ25452-25501 and AAQ30226-448. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 20 BP; 2 A; 3 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2170 TTTTTTTTTTTTTTTTA 2187
              || |||||||||| ||| |
Db          2 TTCTTTTTTTTTCTTTCA 19


RESULT 5254
AAQ68869
ID   AAQ68869 standard; DNA; 20 BP.
XX
AC   AAQ68869;
XX
DT   25-MAR-2003  (revised)
DT   22-MAY-1995  (first entry)
XX
DE   Self paired oligonucleotide (SA12) used in antisense therapy.
XX
KW   Oligonucleotide; antisense; self paired; nuclease resistant;
KW   dermatological disorders; viral infection; cancer; atopical dermatitis;
KW   psoriasis; melanoma; T cell lymphoma; herpes simplex; papilloma;
KW   hepatitis; HIV; human immunodeficiency virus; oncogene; collagenase;
KW   elastase; bone marrow graft; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_structure  13. .20
FT                   /*tag=  a
FT                   /label= Hairpin loop.
XX
PN   FR2703053-A1.
XX
PD   30-SEP-1994.
XX
PF   26-MAR-1993;   93FR-00003514.
XX
PR   26-MAR-1993;   93FR-00003514.
XX
PA   (GEST ) GENSET.
XX
PI   Vasseur M,  Blumenfeld M,  Meguenni S,  Poddevin B;
XX
DR   WPI; 1994-312170/39.
XX
PT   New oligo:nucleotide(s) self paired at one or both ends - have improved
PT   resistance to nuclease(s) and reduced toxicity, useful as anti:sense
PT   molecules for treating dermatological disorders, virus infections,
PT   cancer, etc.
XX
PS   Example 1; Fig 4a; 40pp; French.
XX
CC   The new hooked or semi-hooked oligonucleotides (see AAQ68869-71,
CC   AAQ68873, AAQ68875, AAQ68877, AAQ68879 and AAQ68880) are useful as
CC   therapeutic antisense molecules for treating dermatological disorders
CC   (e.g. atopical dermatitis, psoriasis, melanoma, T cell lymphoma etc.)
CC   viral infections (e.g. herpes simplex, papilloma, hepatitis or HIV); or
CC   cancer (when directed against an oncogene), due to their ability to
CC   hybridise with target nucleic acid. They can be used ex vivo, e.g., to
CC   treat bone marrow grafts. They can also be used for diagnosis or in
CC   cosmetics e.g. to block mRNA coding proteins involved in the ageing
CC   process such as collagenase or elastase. Compared with linear antisense
CC   molecules, the hooked or semi-hooked oligonucleotides are more resistant
CC   to exonucleases and less toxic because they are less likely to hybridise
CC   with partially complementary non-target sequences. (Updated on 25-MAR-
CC   2003 to correct PN field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 20 BP; 15 A; 2 C; 3 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2803
              |||||||||||   |||
Db          1 AAAAAAAAAAAAGCGAAA 18


RESULT 5255
AAT47265/c
ID   AAT47265 standard; RNA; 20 BP.
XX
AC   AAT47265;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment #2 of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= 7-methylguanosine
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= triphosphorylated
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US008394.
XX
PR   07-JUN-1995;   95US-00480068.
XX
```

PA (MERI) MERCK & CO INC.
XX
PI Benseler F, Cole JL, Kuo LC, Olsen DB;
XX
DR WPI; 1997-051868/05.
XX
PT Production of capped RNA or analogues - useful as substrates for
PT influenza virus associated virally encoded endonuclease.
XX
PS Claim 18; Page 12; 39pp; English.
XX
CC AAT47264-T47280 represent capped RNA molecules produced by the method of
CC the invention. The method of the invention is for producing capped RNA or
CC RNA analogues. The method comprises reacting a RNA or analogue
CC oligonucleotide with a phosphate addition agent to form a RNA or analogue
CC mono-, di- or triphosphate, which is then capped. The presence of the cap
CC is important for mRNA maturation, initiation of translation, and protects
CC the mRNA against various RNases present in the cell. The capped RNA or
CC analogue is an influenza endonuclease aptamer, useful for treating or
CC preventing an influenza infection in an animal. The synthetic capped RNA
CC are substrates for virally encoded endonuclease associated with influenza
CC virus. The short non-extendible (due to their length or because of the
CC modification of the 3' end of the oligo) RNA molecules are potent
CC inhibitors of the cleavage of capped RNA by influenza endonuclease. They
CC may be used to investigate viral and cellular mechanisms of
CC transcription/translation, or mRNA maturation
XX
SQ Sequence 20 BP; 3 A; 1 C; 2 G; 0 T; 14 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAAAA 2802
||||| ||||| |||||
Db 20 GAAAATTAAAAATAAAAA 3

RESULT 5256
ABL57554/c
ID ABL57554 standard; DNA; 20 BP.
XX
AC ABL57554;
XX
DT 26-JUL-2002 (first entry)
XX
DE Synthetic deoxyribooligonucleotide poly u.
XX
KW Concentration; quantification; mutation detection; polymorphic;
KW polymerase chain reaction; PCR; ss.
XX
OS Synthetic.
XX
PN EP1046717-A2.
XX
PD 25-OCT-2000.
XX
PF 20-APR-2000; 2000EP-00108643.
XX
PR 20-APR-1999; 99JP-00111601.
XX
PA (NIBI-) JAPAN BIOINDUSTRY ASSOC.
PA (AGEN) AGENCY OF IND SCI & TECHNOLOGY.
PA (KANK-) KANKYO ENG CO LTD.
XX
PI Kurane R, Kanagawa T, Kamagata Y, Kurata S, Yamada K, Yokomaku T;
PI Koyama O, Furusho K;
XX
DR WPI; 2000-657765/64.
XX
PT Determining the concentration of a target nucleic acid, useful e.g. for
PT detecting genetic mutations, comprises using a fluorescently labeled
PT probe in which emission is reduced by binding to the target nucleic acid.
XX
PS Example 6; Page 23; 55pp; English.
XX
CC The invention relates to the determination of the concentration of a
CC nucleic acid target, using a fluorescently labeled probe which produces
CC reduced fluorescence emission when hybridised to the target nucleic acid.
CC The method comprises measuring the reduction in emission caused by
CC hybridisation. The new method is particularly used to quantify target
CC nucleic acids by a real-time polymerase chain reaction, e.g. for
CC quantifying microbial cells in co-cultures or symbiotic systems, for
CC detecting gene mutations or polymorphisms, and for analysing melting
CC curves of target nucleic acids to determine a Tm value. Methods of the
CC invention allow target nucleic acids to be quantified quickly, easily and
CC accurately. Particularly there is no need to remove unbound probe, and no
CC materials are introduced that inhibit amplification by Taq polymerase (so
CC conventional PCR conditions can be used). The specificity of PCR is kept
CC high (amplification of primer dimers is delayed), and the limit of
CC quantitation is reduced. Complex probes are not needed, and amplification
CC can be monitored in real time. The working graph for data analysis
CC (automatically generated by a computer) has a higher correlation
CC coefficient than conventional graphs so more accurate quantitation is
CC possible. The current sequence represents a synthetic
CC deoxyribooligonucleotide that was used for investigating the effects of
CC the number of G(s) in each target nucleic acid, and the number of G(S) in
CC its corresponding invention nucleic acid probe
XX
SQ Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAA 2803
|||||||||||| | | |
Db 20 AAAAAAAAAAAATATATA 3

RESULT 5257
ABA97633/c
ID ABA97633 standard; DNA; 20 BP.
XX
AC ABA97633;
XX
DT 11-APR-2002 (first entry)
XX
DE Poly o nucleotide sequence.
XX
KW ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS Unidentified.
XX
PN JP2001286300-A.
XX
PD 16-OCT-2001.
XX
PF 20-APR-2000; 2000JP-00120097.
XX
PR 20-APR-1999; 99JP-00111601.
PR 24-AUG-1999; 99JP-00236666.
PR 30-AUG-1999; 99JP-00242693.
PR 01-FEB-2000; 2000JP-00028896.
XX
PA (BIOI-) BIOINDUSTRY KYOKAI SH.
PA (KANK-) KANKYO ENG KK.
PA (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR WPI; 2002-134193/18.
XX
PT Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT the obtained data.
XX
PS Example 6; Page 18; 34pp; Japanese.
XX

```
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAA 2803
              ||||||||||||  | | |
Db         20 AAAAAAAAAAAATATATA 3


RESULT 5258
ABA97639/c
ID   ABA97639 standard; DNA; 20 BP.
XX
AC   ABA97639;
XX
DT   11-APR-2002  (first entry)
XX
DE   Poly u nucleotide sequence.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAA 2803
              ||||||||||||  | | |
Db         20 AAAAAAAAAAAATATATA 3


RESULT 5259
ABZ88937/c
ID   ABZ88937 standard; DNA; 20 BP.
XX
AC   ABZ88937;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4179; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 13 A; 3 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTTG 2193
              ||||||||||| ||  ||
Db         20 TTTTTTTTTTTGACAGTG 3


RESULT 5260
ABZ87698
ID   ABZ87698 standard; DNA; 20 BP.
```

```
XX
AC   ABZ87698;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 2940; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 16 A; 4 C; 0 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAA 2803
              ||||||| ||||  ||||
Db          1 AAAAAAACAAAACCAAAA 18


RESULT 5261
AAH91825/c
ID   AAH91825 standard; DNA; 21 BP.
XX
AC   AAH91825;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Human inflammatory bowel disease associated polymorphic site #900.
XX
KW   Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW   single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW   chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    11
FT                   /*tag=  a
FT                   /note= "SNP, optionally T or A at this position"
XX
PN   WO200142511-A2.
XX
PD   14-JUN-2001.
XX
PF   11-DEC-2000; 2000WO-US033632.
XX
PR   10-DEC-1999;   99US-0170257P.
PR   10-APR-2000; 2000US-0196046P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI   Daly M,  Hudson TJ,  Lander ES,  Rioux J,  Siminovitch K;
XX
DR   WPI; 2001-367874/38.
XX
PT   Testing for the presence of polymorphisms associated with inflammatory
PT   bowel disease, using a hybridization assay.
XX
PS   Claim 1; Page 76; 463pp; English.
XX
CC   The present invention describes a method for detecting the presence of
CC   polymorphisms associated with inflammatory bowel diseases such as
CC   ulcerative colitis and Crohn's disease. The methods can be used to detect
CC   the presence of genetic polymorphisms associated with inflammatory bowel
CC   disease and correlating their occurrence with disease states. They may be
CC   used in this way for phenotypic correlations, forensics, paternity
CC   testing, medicine and genetic analysis. The present sequence is a
CC   polymorphic site described in the exemplification of the invention
XX
SQ   Sequence 21 BP; 1 A; 3 C; 0 G; 16 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 21;
  Best Local Similarity   78.9%;  Pred. No. 5.2e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||||||||||  | ||| |
Db         21 AAAAAAAAAAANGATAAAGA 3


RESULT 5262
ABK70498/c
ID   ABK70498 standard; DNA; 21 BP.
XX
AC   ABK70498;
XX
DT   15-JUL-2002  (first entry)
XX
DE   In-situ analysis synthetic probe #63.
XX
KW   Human; oligonucleotide label-domain; CMV; cytomegalovirus; EBV;
KW   Epstein-Barr virus; lambda-immunoglobulin light chain; hapten;
KW   kappa-immunoglobulin light chain; repetitive Alu sequence; EBER;
KW   Epstein-Barr early RNA; probe; ss.
```

XX
OS Synthetic.
XX
PN WO200222874-A2.
XX
PD 21-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-US028014.
XX
PR 15-SEP-2000; 2000US-0233177P.
XX
PA (VENT-) VENTANA MEDICAL SYSTEMS INC.
XX
PI Utermohlen JG, Connaughton J;
XX
DR WPI; 2002-371972/40.
XX
PT Novel oligonucleotide label-domain for incorporation into oligonucleotide
PT probes useful for detecting or localizing nucleic acid target genes
PT within a cell or tissue sample.
XX
PS Example 4; Page 19; 71pp; English.
XX
CC The present invention relates to a new oligonucleotide label-domain
CC comprising the sequence (CTATTTT)_n and its complement (AAAATAG)_n, where
CC n is 1. The probe sets of the invention are useful for detecting kappa or
CC lambda-immunoglobulin light chain mRNA or corresponding heteronuclear
CC RNA, CMV (cytomegalovirus) immediate early RNA, EBV (Epstein-Barr virus)
CC early RNA 1 and RNA 2, and human Alu repetitive satellite genomic
CC sequences. The invention is a useful generic sequence for incorporation
CC into oligonucleotide probes for detecting gene-specific sequences within
CC cells or tissue samples in in situ hybridisation analysis and for
CC attaching a label to immunoglobulins or other proteins for detecting
CC haptens and antigens in immunohistochemical analyses. The present nucleic
CC acid sequence represents one of a collection (ABK70376-ABK70501) of
CC oligonucleotide probes that were used in the invention for detecting or
CC localising a plurality nucleic acid target gene or antigen within a cell
CC or tissue sample
XX
SQ Sequence 21 BP; 2 A; 3 C; 0 G; 16 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 21;
Best Local Similarity 83.3%; Pred. No. 5.2e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAA 2803
|||| ||||| | |||||
Db 21 AAAAGAAAAATAGAAAAA 4

RESULT 5263
ABQ78573/c
ID ABQ78573 standard; DNA; 21 BP.
XX
AC ABQ78573;
XX
DT 25-NOV-2002 (first entry)
XX
DE RT-PCR primer used to amplify mucin 5AC (MUC5AC) cDNA.
XX
KW Human; mucin 4; MUC4; peripheral blood monocyte; PBMC; tumour marker;
KW pancreatic cancer; pancreatic adenocarcinoma; MUC5AC; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200259368-A1.
XX
PD 01-AUG-2002.
XX
PF 07-DEC-2001; 2001WO-US046887.
XX
PR 08-DEC-2000; 2000US-00733444.
XX
PA (UYNE-) UNIV NEBRASKA.
XX
PI Batra SK, Brand RE, Ringel J, Faulamnn G, Lohr M, Varsheny GC;
XX
DR WPI; 2002-643346/69.
XX
PT Diagnosing pancreatic adenocarcinoma, particularly for the early
PT detection of the pancreatic cancer, comprises employing primers or
PT antibodies that are specific for the MUC4-encoding nucleic acid or MUC4
PT protein, respectively.
XX
PS Example 1; Page 29; 63pp; English.
XX
CC PCR primers ABQ78573-74 were used to amplify human mucin 5AC (MUC5AC)
CC cDNA. Peripheral blood monocytes (PBMCs) isolated from pancreatic cancer
CC patients are positive for MUC4, while MUC4 expression is not observed in
CC PBMCs isolated from normal patients or from patients suffering from
CC chronic pancreatitis or other types of cancers. Expression of MUC4 can
CC therefore be used as an indication of pancreatic cancer. The
CC specification describes a method for detecting a MUC4-encoding nucleic
CC acid or a MUC4 protein in a biological sample as a tumour marker for
CC pancreatic cancer. The method comprises contacting a nucleic acid
CC extracted from the sample with oligonucleotide primers that specifically
CC hybridise to the MUC4 nucleic acid; or contacting a biological sample
CC with an antibody (or its fragment) that has specific binding affinity for
CC MUC4. The method is useful for diagnosing pancreatic cancer or pancreatic
CC adenocarcinoma, particularly for early detection of pancreatic cancer
XX
SQ Sequence 21 BP; 5 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 21;
Best Local Similarity 83.3%; Pred. No. 5.2e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 718 CCTGTTGCTGCACGATCA 735
|||| ||||| | |||||
Db 18 CCTGCTGCTGGATGATCA 1

RESULT 5264
AAT28045/c
ID AAT28045 standard; DNA; 22 BP.
XX
AC AAT28045;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer B for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,

PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 2 A; 5 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5265
AAT28046/c
ID AAT28046 standard; DNA; 22 BP.
XX
AC AAT28046;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer C for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,

PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
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PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5266
AAT28044/c
ID AAT28044 standard; DNA; 22 BP.
XX
AC AAT28044;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer A for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,

PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 2 A; 4 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5267
AAT58484/c
ID AAT58484 standard; DNA; 22 BP.
XX
AC AAT58484;
XX
DT 21-MAR-1997 (first entry)
XX
DE First primer #1 for use in enhanced differential display method.
XX
KW Differential Display; Enhanced Differential Display; EDD; screening;
KW gene expression; cell type; different; cell development; gene typing;
KW identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS Synthetic.
XX
PN US5580726-A.
XX
PD 03-DEC-1996.
XX
PF 29-APR-1994; 94US-00235180.
XX
PR 29-APR-1994; 94US-00235180.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Feng J, Villeponteau B, Funk W;
XX
DR WPI; 1997-033564/03.
XX
PT Detection of differentially expressed mRNA mols. - using two-step
PT polymerase chain reaction amplification method.
XX
PS Claim 9; Col 13; 15pp; English.
XX
CC An improved method of Differential Display, named Enhanced Differential
CC Display (EDD) has been designed as a technique for screening differences
CC in gene expression between various cell types or between different stages
CC of cell development. The technique is highly reproducible, leading to
CC precise typing of the expressed genes in any given cell. EDD analysis
CC permits the identification of novel genes involved in differentiation,
CC aging and disease, and enables direct comparisons of different cell types
CC and disease states. By using longer primers, and/or an alteration in the
CC annealing temperatures, the number of false positives can be reduced.
CC First, cDNA is prepared from total cellular RNA using 12 different 22-
CC base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC of pol II mRNA transcripts. The last two bases of each primer varies so
CC as to anchor the primer to the 3' end of different sets of mRNAs. A
CC second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC amplification of a subset of cDNAs is carried out in a two step process
CC using particular 5' and 3' primers. The amplified gene products can then
CC be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ Sequence 22 BP; 2 A; 4 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5268
AAT58485/c
ID AAT58485 standard; DNA; 22 BP.
XX
AC AAT58485;
XX
DT 21-MAR-1997 (first entry)
XX
DE First primer #2 for use in enhanced differential display method.
XX
KW Differential Display; Enhanced Differential Display; EDD; screening;
KW gene expression; cell type; different; cell development; gene typing;
KW identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS Synthetic.
XX
PN US5580726-A.
XX
PD 03-DEC-1996.
XX
PF 29-APR-1994; 94US-00235180.
XX
PR 29-APR-1994; 94US-00235180.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Feng J, Villeponteau B, Funk W;
XX
DR WPI; 1997-033564/03.
XX
PT Detection of differentially expressed mRNA mols. - using two-step
PT polymerase chain reaction amplification method.
XX
PS Claim 9; Col 13; 15pp; English.
XX
CC An improved method of Differential Display, named Enhanced Differential
CC Display (EDD) has been designed as a technique for screening differences
CC in gene expression between various cell types or between different stages
CC of cell development. The technique is highly reproducible, leading to
CC precise typing of the expressed genes in any given cell. EDD analysis
CC permits the identification of novel genes involved in differentiation,
CC aging and disease, and enables direct comparisons of different cell types

```
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 2 A; 5 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5269
AAT58486/c
ID   AAT58486 standard; DNA; 22 BP.
XX
AC   AAT58486;
XX
DT   21-MAR-1997  (first entry)
XX
DE   First primer #3 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 13; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5270
AAV03675/c
ID   AAV03675 standard; DNA; 22 BP.
XX
AC   AAV03675;
XX
DT   21-MAY-1998  (first entry)
XX
DE   Oligo dT primer.
XX
KW   Jagged; Notch; angiogenesis; endothelial cell; migration; human;
KW   wound repair; vulnerary; injury repair; signal transduction;
KW   motor neurone disease; amyotrophic lateral sclerosis; polymyelitis;
KW   diagnosis; gene therapy; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9745143-A1.
XX
PD   04-DEC-1997.
XX
PF   30-MAY-1997;   97WO-US009407.
XX
PR   31-MAY-1996;   96US-0018841P.
XX
PA   (NAAM-) NAT AMERICAN RED CROSS.
PA   (UYGE-) UNIV GENEVE.
XX
PI   Zimrin AB,  Maciag T,  Pepper M,  Montesano R,  Wong MK;
XX
DR   WPI; 1998-032340/03.
XX
PT   New human Jagged protein - used to inhibit or promote angiogenesis and to
PT   control migration of endothelial cells in injured blood vessels.
XX
PS   Example 3; Page 38; 81pp; English.
XX
CC   This oligo-dT primer was used in the synthesis of cDNA from total RNA
CC   isolated from human umbilical vein endothelial cells (HUVEC) stimulated
CC   with fibrin. It was also used as a 3' primer with a 5' primer (see
CC   AAV03676) in the PCR amplification of the cDNA. The PCR product was
CC   cloned into a TA vector and used to screen a HUVEC cDNA library. RT-PCR
CC   analysis (see AAV03677-84) was performed to analyse expression of Jagged,
CC   Notch 1, Notch 2 and glyceraldehyde 3-phosphate dehydrogenase in human
CC   endothelial cell populations. The novel human Jagged gene (see AAV03684)
CC   and protein (see AAW40827) can be used to control migration of
CC   endothelial cells and in methods of modulating angiogenesis
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4
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RESULT 5271
AAZ47342/c
ID   AAZ47342 standard; DNA; 22 BP.
XX
AC   AAZ47342;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer A used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 2 A; 4 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5272
AAZ47344/c
ID   AAZ47344 standard; DNA; 22 BP.
XX
AC   AAZ47344;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer C used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
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CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5273
AAZ47343/c
ID   AAZ47343 standard; DNA; 22 BP.
XX
AC   AAZ47343;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer B used in differential display analysis of Aspergillus oryzae.
```

XX
KW Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS Synthetic.
OS Aspergillus oryzae.
XX
PN WO9960136-A1.
XX
PD 25-NOV-1999.
XX
PF 14-MAY-1999; 99WO-US010689.
XX
PR 15-MAY-1998; 98US-00079344.
PR 15-MAY-1998; 98US-00079601.
XX
PA (NOVO) NOVO NORDISK BIOTECH INC.
PA (NOVO) NOVO-NORDISK AS.
XX
PI Wahleithner J, Christensen T;
XX
DR WPI; 2000-062459/05.
XX
PT New isolated Aspergillus oryzae signaling sequences, used to increase the
PT production of polypeptides by recombinant host filamentous fungal cells.
XX
PS Example 2; Page 35; 78pp; English.
XX
CC Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC differential display analysis of the Aspergillus oryzae strains HC4.01
CC and 27. The strains were analysed to find the genetic basis for phenotype
CC differences in the strains which are used in a method for producing a
CC polypeptide in an enhanced amount. The method involves cultivating a
CC mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC The mutant cell contains the nucleotide sequence encoding the polypeptide
CC to be synthesised and one or more second nucleotide sequences encoding a
CC DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC the polypeptide than the parent cell and the polypeptide can be recovered
CC from the nutrient medium of the mutant cell. The method can be used for
CC the production of polypeptides such as hormones, receptors, antibodies,
CC reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC ribonuclease, transglutaminase or xylanase
XX
SQ Sequence 22 BP; 2 A; 5 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5274
AAH22185/c
ID AAH22185 standard; DNA; 22 BP.
XX
AC AAH22185;
XX
DT 20-AUG-2001 (first entry)
XX
DE Human hepatocyte auxin related 3'-(T-rich) primer A.
XX
KW Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS Homo sapiens.
XX
PN CN1280985-A.
XX
PD 24-JAN-2001.
XX
PF 20-JUL-1999; 99CN-00110801.
XX
PR 20-JUL-1999; 99CN-00110801.
XX
PA (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI Kong X, Yi X, Zeng P;
XX
DR WPI; 2001-291394/31.
XX
PT Novel recombinant human hepatocyte auxin, its preparation and clinical
PT application.
XX
PS Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC The present invention describes a differential indication PCR (polymerase
CC chain reaction) technique which is used to obtain a new complete gene
CC able to promote the repair of damaged liver cells and with substance
CC total length of 0.7 kb by screening the cDNA library of human foetal
CC liver. The induction expression of engineering bacteria, the separation
CC and cracking of inclusion body and the process for restoring and
CC decontaminating proteins are built up to obtain high purity recombinant
CC human hepatocyte auxin. It can externally promote the reproduction of
CC primary culture liver cells and liver cancer cells BEL-7402 and
CC internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC damaged and the repair of liver cells. The method may be used to treat
CC serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC present sequence represents a primer which is used in the exemplification
CC of the present invention
XX
SQ Sequence 22 BP; 2 A; 4 C; 3 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 22;
Best Local Similarity 83.3%; Pred. No. 5.4e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1978 GAAAAAAAGAAAAGTGTG 1995
||||||||| ||||| ||
Db 21 GAAAAAAAAAAAAGCTTG 4

RESULT 5275
AAH22187/c
ID AAH22187 standard; DNA; 22 BP.
XX
AC AAH22187;
XX
DT 20-AUG-2001 (first entry)
XX
DE Human hepatocyte auxin related 3'-(T-rich) primer C.
XX
KW Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS Homo sapiens.
XX
PN CN1280985-A.
XX
PD 24-JAN-2001.
XX
PF 20-JUL-1999; 99CN-00110801.
XX
PR 20-JUL-1999; 99CN-00110801.
XX
PA (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI Kong X, Yi X, Zeng P;
XX

```
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5276
AAH22186/c
ID   AAH22186 standard; DNA; 22 BP.
XX
AC   AAH22186;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer B.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 2 A; 5 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              ||||||||  |||||  ||
Db         21 GAAAAAAAAAAAAGCTTG 4


RESULT 5277
AAT93818/c
ID   AAT93818 standard; DNA; 22 BP.
XX
AC   AAT93818;
XX
DT   25-MAR-2003  (revised)
DT   24-FEB-1998  (first entry)
XX
DE   Antitumoural phosphodiester oligonucleotide 8 with cytotoxic activity.
XX
KW   Phosphodiester; selective binding; cell viability; growth;
KW   tumoural cell line; cytotoxic activity; tumour cell; lymphoma;
KW   lymphoblastic tumour; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .22
FT                    /*tag=  a
FT                    /note= "phosphodiester oligonucleotide"
XX
PN   WO9720924-A1.
XX
PD   12-JUN-1997.
XX
PF   04-DEC-1996;   96WO-EP005388.
XX
PR   04-DEC-1995;   95IT-MI002539.
XX
PA   (SAIC-) SAICOM SRL.
XX
PI   Scaggiante B,  Quadrifoglio F;
XX
DR   WPI; 1997-319771/29.
XX
PT   New phospho:di:esteric oligo:nucleotide(s) - which exert a specific and
PT   selective cytotoxic effect on tumour cells, for treating both solid and
PT   liquid tumours.
XX
PS   Claim 10; Page 5; 38pp; English.
XX
CC   Novel phosphodiesteric oligonucleotides AAT93811-27 are based on the
CC   generic formula, in the 3'-5' or 5'-3' direction: (GaTa')a''-(GbTb')b''-
CC   (GcTc')c''-(GdTd')d''-(GeTe')e''-(GfTf')f''- (G-gTg')g''-N', where: N and
CC   N' = T or G, equal or different from each other; x = 0-8, equal or
CC   different from each other; a, b, c, d, e, f, and g = 0-10, equal or
CC   different from each other; a', b', c', d', e', f', and g' = 0-30, equal
CC   or different from each other; a'', b'', c'', d'', e'', f'', and g'' = 1-
CC   16, equal or different from each other; The oligonucleotides are believed
CC   to selectively bind and sequester some proteins which are essential to
CC   the viability and growth of tumoural cell line. They have specific and
CC   selective cytotoxic activity against tumour cells, and can be used for
```

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CC   treating tumours of the liquid type, in particular of lymphoblastic
CC   origin, and of solid type, in particular lymphomas. The present
CC   phosphodiester oligonucleotide, at a concentration of 15 micromolar,
CC   reduced growth of CCRF-CEM tumoural cells by 79%, which is detectable 48
CC   hours after administration. (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 22 BP; 0 A; 0 C; 4 G; 18 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 22;
  Best Local Similarity   83.3%;  Pred. No. 5.4e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      2786 AAAAAAAAAAAAAAAAAA 2803
             |||| |||| ||||| ||
Db        22 AAAACAAAACAAAAACAA 5


RESULT 5278
AAF60331/c
ID   AAF60331 standard; DNA; 23 BP.
XX
AC   AAF60331;
XX
DT   10-MAY-2001  (first entry)
XX
DE   Human liver RNA reverse transcription primer.
XX
KW   Human; endostatin; antitumour; cytostatic; antiarthritic; antipsoriatic;
KW   antidiabetic; ophthalmological; gene therapy; angiogenic inhibitor;
KW   adenoviral vector; diabetic retinopathy; cardiovascular disease;
KW   arthritis; psoriasis; cerebral oedema; intravascular coagulopathy;
KW   lymphoma; leukaemia; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200112830-A1.
XX
PD   22-FEB-2001.
XX
PF   11-AUG-2000; 2000WO-EP007865.
XX
PR   13-AUG-1999;   99US-00373938.
XX
PA   (NOVS ) NOVARTIS AG.
PA   (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI   Hallenbeck PL,  Chen CT;
XX
DR   WPI; 2001-202871/20.
XX
PT   Adenoviral vector for treating tumors and disorders associated with
PT   angiogenesis, such as cancer, arthritis, and psoriasis, comprises a DNA
PT   sequence encoding an angiogenic inhibitor, particularly endostatin.
XX
PS   Example 4; Page 31; 59pp; English.
XX
CC   The present sequence was used in the construction of an adenoviral vector
CC   which includes a DNA sequence encoding endostatin. The adenoviral vector
CC   is useful for expressing endostatin in a mammalian cell such as an A549
CC   or Hep3B cell. It is useful for treating other diseases and disorders
CC   associated with angiogenesis, such as neovascular diseases of the eye,
CC   including diabetic retinopathy, cardiovascular disease, arthritis,
CC   psoriasis, cerebral oedema and intravascular coagulopathy (Kasabach-
CC   Merritt syndrome). The vector inhibits, prevents or destroys the growth
CC   of tumours by preventing the formation of blood vessels in tumours, such
CC   as lymphoma and leukaemia
XX
SQ   Sequence 23 BP; 5 A; 2 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 23;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      1970 TTTACCTTGAAAAAAAGA 1987
             |||||  ||||||||| |
Db        18 TTTACACTGAAAAAAAAA 1


RESULT 5279
ABQ81205/c
ID   ABQ81205 standard; DNA; 23 BP.
XX
AC   ABQ81205;
XX
DT   05-DEC-2002  (first entry)
XX
DE   Human endostatin cDNA primer.
XX
KW   Endostatin; human; ophthalmological; ocular neovascularisation;
KW   choroidal neovascularisation; gene therapy; adenovirus; vector; primer;
KW   ss.
XX
OS   Homo sapiens.
XX
PN   WO200267971-A2.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-US005336.
XX
PR   22-FEB-2001; 2001US-0270787P.
PR   04-APR-2001; 2001US-0281296P.
XX
PA   (NOVS ) NOVARTIS AG.
XX
PI   Brazzell RK,  Campochiaro PA,  Dixon KH;
XX
DR   WPI; 2002-698636/75.
XX
PT   Treating or preventing choroidal neovascularization comprises increasing
PT   the amount of endostatin in ocular tissues of afflicted individuals to a
PT   choroidal neovascularization inhibiting level.
XX
PS   Example 6; Page 27; 44pp; English.
XX
CC   The present sequence is a primer that was used in the reverse
CC   transcription of human endostatin mRNA. The resulting cDNA was subjected
CC   to PCR amplification and used to generate a recombinant adenoviral vector
CC   encoding human endostatin. A claimed method for the treatment of ocular,
CC   especially choroidal, neovascularisation involves increasing the level of
CC   endostatin, especially human endostatin (see ABB79901) in ocular tissue.
CC   The increase is effected by administering a viral vector, especially an
CC   adenovirus, adeno-associated virus, a retrovirus or lentivirus vector,
CC   comprising an endostatin-encoding nucleic acid. Cells secreting
CC   endostatin may be encapsulated and implanted within an individual
XX
SQ   Sequence 23 BP; 5 A; 2 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 23;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      1970 TTTACCTTGAAAAAAAGA 1987
             |||||  ||||||||| |
Db        18 TTTACACTGAAAAAAAAA 1


RESULT 5280
AAA53817
ID   AAA53817 standard; DNA; 23 BP.
XX
AC   AAA53817;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Primer BTU1-75 hybridizing to BTU1 gene 5' flanking region.
```

```
XX
KW   BTU1; beta-tubulin; protein expression system; negative selection;
KW   paclitaxel sensitivity; cell surface; antigen; protozoa; ciliate;
KW   live vaccine; Ichthyophthiius multifiliis; immobilization-antigen;
KW   i-antigen; freshwater; fish; protozoacide; primer; ss.
XX
OS   Tetrahymena thermophila.
XX
PN   WO200046381-A1.
XX
PD   10-AUG-2000.
XX
PF   04-FEB-2000; 2000WO-US002966.
XX
PR   04-FEB-1999;   99US-0118634P.
PR   02-MAR-1999;   99US-0122372P.
PR   17-MAR-1999;   99US-0124905P.
PR   27-APR-1999;   99US-0131121P.
XX
PA   (UYGE-) UNIV GEORGIA RES FOUND INC.
PA   (GAER/) GAERTIG J.
PA   (DICK/) DICKERSON H W.
PA   (CLAR/) CLARK T G.
XX
PI   Gaertig J,  Dickerson HW,  Clark TG;
XX
DR   WPI; 2000-514962/46.
XX
PT   Recombinant expression systems for expressing heterologous nucleic acids
PT   and producing recombinant protein, comprises nonpathogenic protozoa such
PT   as Tetrahymena resistant to paclitaxel.
XX
PS   Example 2; Page 36; 83pp; English.
XX
CC   Primers AAA53817-18 were used to amplify genomic DNA from T. thermophila
CC   transformants to identify sequences integrated into the BTU1 locus.
CC   Tetrahymena thermophila expresses two major beta-tubulin genes (BTU1 and
CC   BTU2), which encode identical beta-tubulin proteins. Either of these two
CC   genes (but not both at once) can be disrupted without a detectable change
CC   in the cell phenotype. A K350L substitution in the BTU1 beta-tubulin
CC   protein confers increased resistance to microtubule-depolymerizing drugs
CC   and increased sensitivity to paclitaxel, a microtubule-stabilizing drug.
CC   Cells carrying the Btu1-1K350M allele can be transformed to paclitaxel
CC   resistance by gene replacement of Btu1-1K350M with a wild-type BTU1 gene
CC   fragment, eliminating the need to incorporate a means for positive
CC   selection. Where the host organism is not a T. thermophila mutant
CC   containing the Btu1-1K350M allele, BTU1::neo1 construct, which
CC   substitutes the coding region of the neo1 gene (conferring resistance to
CC   parmomycin) for that of BTU1, can be used to generate BTU1 gene knockouts
CC   and for positive selection. Heterologous nucleic acids (especially
CC   encoding antigenic polypeptides) can be inserted into a BTU gene for
CC   successful cell-surface expression that is maintained by way of negative
CC   selection. Preferred expression vectors disrupt the Btu1-1K350M gene by
CC   homologous recombination-mediated insertion of a heterologous nucleic
CC   acid, thereby restoring resistance to paclitaxel in the resulting
CC   transgenic host. Transgenic ciliated protozoa are useful as live vaccines
CC   for stimulating an immune response in a vertebrate. The transgenic
CC   protozoan host cells are also useful for producing polyclonal antibodies
CC   (claimed). In particular, Tetrahymena expressing Ichthyophthiius
CC   multifiliis immobilization-antigen (i-antigen) protein on their surface
CC   are effective vehicles for vaccination of freshwater fish against
CC   infection by I. multifiliis
XX
SQ   Sequence 23 BP; 17 A; 0 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 23;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1980 AAAAAAGAAAAGTGTGTA 1997
              |||||| |||||| || |
Db          1 AAAAAATAAAAGTTTGAA 18
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RESULT 5281
ABZ25620/c
ID   ABZ25620 standard; DNA; 24 BP.
XX
AC   ABZ25620;
XX
DT   28-MAR-2003  (first entry)
XX
DE   Human zinc finger protein 11 PCR primer 1.
XX
KW   Human; zinc finger protein 11; tumour; haemopathy; HIV; inflammation;
KW   immunological disease; zinc finger; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1364768-A.
XX
PD   21-AUG-2002.
XX
PF   10-JAN-2001; 2001CN-00105125.
XX
PR   10-JAN-2001; 2001CN-00105125.
XX
PA   (BIOW-) BIOWINDOW GENE DEV INC SHANGHAI.
XX
PI   Mao Y,  Xie Y;
XX
DR   WPI; 2003-000480/01.
XX
PT   New human zinc finger protein 11 and encoding polynucleotide, useful in
PT   treating cancer and as an anti-inflammatory.
XX
PS   Example 2; Page 16 (Disclosure); 32pp; Chinese.
XX
CC   The invention relates to the novel human zinc finger protein 11, and the
CC   polynucleotide encoding it. The polypeptide is useful in treating various
CC   diseases, such as malignant tumours, haemopathy, HIV Infection,
CC   immunological diseases and various inflammations. The present sequence
CC   represents a PCR primer used to amplify the human zinc finger protein 11
CC   cDNA of the invention
XX
SQ   Sequence 24 BP; 4 A; 5 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 24;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1978 GAAAAAAAGAAAAGTGTG 1995
              | |||||||||||  |||
Db         18 GTAAAAAAGAAAAAAGTG 1
```

```
RESULT 5282
ABN86391/c
ID   ABN86391 standard; DNA; 24 BP.
XX
AC   ABN86391;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Basophilic nucleoprotein polypeptide 45.32 cDNA isolating primer 2.
XX
KW   Basophilic nucleoprotein polypeptide 45.32; cytostatic; human; RT-PCR;
KW   embryonic development; growth; tumour; immunological disease; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1341659-A.
XX
PD   27-MAR-2002.
XX
PF   07-SEP-2000; 2000CN-00125081.
```

XX
PR 07-SEP-2000; 2000CN-00125081.
XX
PA (SHAN-) SHANGHAI BIODOOR GENE DEV CO LTD.
XX
PI Mao Y, Xie Y;
XX
DR WPI; 2002-520726/56.
XX
PT A human basophilic nucleoprotein polypeptide 45.32, useful for curing
PT e.g. tumors and immunological disease.
XX
PS Example 2; Page 16 (disclosure); 33pp; Chinese.
XX
CC The invention relates to a human basophilic nucleoprotein polypeptide
CC 45.32 and encoding polynucleotide. The polypeptide can be expressed by
CC standard DNA recombination technology. The polypeptide is useful for
CC curing several diseases, such as embryonic development disturbance,
CC growth development disturbance disease, tumour and immunological disease.
CC The present sequence represents a RT-PCR primer for isolating the human
CC basophilic nucleoprotein polypeptide 45.32 cDNA
XX
SQ Sequence 24 BP; 6 A; 1 C; 0 G; 17 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 24;
Best Local Similarity 83.3%; Pred. No. 5.5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAA 2803
||||| |||||| | |||
Db 20 AAAAATAAAAAATATAAA 3

RESULT 5283
ABQ94378/c
ID ABQ94378 standard; DNA; 25 BP.
XX
AC ABQ94378;
XX
DT 28-OCT-2002 (first entry)
XX
DE Tumour suppression-related oligonucleotide #29.
XX
KW Tumour; cytostatic; antiviral; neuroprotective; nootropic; neuroleptic;
KW tumour suppression; tumour reversion; apoptosis; viral resistance; human;
KW viral infection; cell degeneration disease; neurodegeneration; ds;
KW Alzheimer's disease; schizophrenia; immune disease; inflammatory disease.
XX
OS Homo sapiens.
XX
PN FR2819824-A1.
XX
PD 26-JUL-2002.
XX
PF 23-JAN-2001; 2001FR-00000899.
XX
PR 23-JAN-2001; 2001FR-00000899.
XX
PA (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI Telerman A, Amson R, Tuijnder M, Susini L;
XX
DR WPI; 2002-610803/66.
XX
PT New nucleic acid implicated e.g. in tumor suppression, useful for
PT diagnosis of tumors, viral infection and cellular degeneration and for
PT drug screening.
XX
PS Claim 1; Page 46; 623pp; French.
XX
CC The present invention relates to novel human nucleic acid sequences (I).
CC The present sequence is one such nucleic acid sequence. Expression of (I)
CC are implicated in tumour suppression or reversion and apoptosis and viral
CC resistance. (I) are useful as probes or primers for detecting,
CC identifying, measuring and/or amplifying nucleic acid sequences, as
CC antisense reagents and for recombinant production of polypeptides. (I),
CC polypeptides (II) encoded by (I), vector containing (I), cells containing
CC these vectors and antibodies (Ab) against (II) are all useful for
CC treatment/prevention of viral, tumour and cell degeneration diseases
CC (especially neurodegeneration, such as Alzheimer's disease and
CC schizophrenia). Analysing the expression of (I) is also useful for
CC diagnosis and/or prognosis of such diseases. Transgenic animals carrying
CC (I) are used for studying the aetiology of these diseases (also immune
CC and inflammatory diseases). Note: In the present specification, SEQ ID 1
CC to 2280 are claimed in Claim 1, however only SEQ ID 1 to 2270 are shown
CC in the specification
XX
SQ Sequence 25 BP; 13 A; 3 C; 3 G; 6 T; 0 U; 0 Other;

Query Match 0.5%; Score 13.2; DB 1; Length 25;
Best Local Similarity 83.3%; Pred. No. 5.5e+03;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2176 TTTTTTTTTTTAACTTTG 2193
||||||||||| || ||
Db 25 TTTTTTTTTTGACAATG 8

RESULT 5284
ABQ94374/c
ID ABQ94374 standard; DNA; 25 BP.
XX
AC ABQ94374;
XX
DT 28-OCT-2002 (first entry)
XX
DE Tumour suppression-related oligonucleotide #25.
XX
KW Tumour; cytostatic; antiviral; neuroprotective; nootropic; neuroleptic;
KW tumour suppression; tumour reversion; apoptosis; viral resistance; human;
KW viral infection; cell degeneration disease; neurodegeneration; ds;
KW Alzheimer's disease; schizophrenia; immune disease; inflammatory disease.
XX
OS Homo sapiens.
XX
PN FR2819824-A1.
XX
PD 26-JUL-2002.
XX
PF 23-JAN-2001; 2001FR-00000899.
XX
PR 23-JAN-2001; 2001FR-00000899.
XX
PA (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI Telerman A, Amson R, Tuijnder M, Susini L;
XX
DR WPI; 2002-610803/66.
XX
PT New nucleic acid implicated e.g. in tumor suppression, useful for
PT diagnosis of tumors, viral infection and cellular degeneration and for
PT drug screening.
XX
PS Claim 1; Page 46; 623pp; French.
XX
CC The present invention relates to novel human nucleic acid sequences (I).
CC The present sequence is one such nucleic acid sequence. Expression of (I)
CC are implicated in tumour suppression or reversion and apoptosis and viral
CC resistance. (I) are useful as probes or primers for detecting,
CC identifying, measuring and/or amplifying nucleic acid sequences, as
CC antisense reagents and for recombinant production of polypeptides. (I),
CC polypeptides (II) encoded by (I), vector containing (I), cells containing
CC these vectors and antibodies (Ab) against (II) are all useful for
CC treatment/prevention of viral, tumour and cell degeneration diseases
CC (especially neurodegeneration, such as Alzheimer's disease and
CC schizophrenia). Analysing the expression of (I) is also useful for

```
CC   diagnosis and/or prognosis of such diseases. Transgenic animals carrying
CC   (I) are used for studying the aetiology of these diseases (also immune
CC   and inflammatory diseases). Note: In the present specification, SEQ ID 1
CC   to 2280 are claimed in Claim 1, however only SEQ ID 1 to 2270 are shown
CC   in the specification
XX
SQ   Sequence 25 BP; 13 A; 3 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 25;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTTG 2193
              ||||||||||| ||  ||
Db         25 TTTTTTTTTTTGACAATG 8


RESULT 5285
ABQ94375/c
ID   ABQ94375 standard; DNA; 25 BP.
XX
AC   ABQ94375;
XX
DT   28-OCT-2002  (first entry)
XX
DE   Tumour suppression-related oligonucleotide #26.
XX
KW   Tumour; cytostatic; antiviral; neuroprotective; nootropic; neuroleptic;
KW   tumour suppression; tumour reversion; apoptosis; viral resistance; human;
KW   viral infection; cell degeneration disease; neurodegeneration; ds;
KW   Alzheimer's disease; schizophrenia; immune disease; inflammatory disease.
XX
OS   Homo sapiens.
XX
PN   FR2819824-A1.
XX
PD   26-JUL-2002.
XX
PF   23-JAN-2001; 2001FR-00000899.
XX
PR   23-JAN-2001; 2001FR-00000899.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB SA.
XX
PI   Telerman A,  Amson R,  Tuijnder M,  Susini L;
XX
DR   WPI; 2002-610803/66.
XX
PT   New nucleic acid implicated e.g. in tumor suppression, useful for
PT   diagnosis of tumors, viral infection and cellular degeneration and for
PT   drug screening.
XX
PS   Claim 1; Page 46; 623pp; French.
XX
CC   The present invention relates to novel human nucleic acid sequences (I).
CC   The present sequence is one such nucleic acid sequence. Expression of (I)
CC   are implicated in tumour suppression or reversion and apoptosis and viral
CC   resistance. (I) are useful as probes or primers for detecting,
CC   identifying, measuring and/or amplifying nucleic acid sequences, as
CC   antisense reagents and for recombinant production of polypeptides. (I),
CC   polypeptides (II) encoded by (I), vector containing (I), cells containing
CC   these vectors and antibodies (Ab) against (II) are all useful for
CC   treatment/prevention of viral, tumour and cell degeneration diseases
CC   (especially neurodegeneration, such as Alzheimer's disease and
CC   schizophrenia). Analysing the expression of (I) is also useful for
CC   diagnosis and/or prognosis of such diseases. Transgenic animals carrying
CC   (I) are used for studying the aetiology of these diseases (also immune
CC   and inflammatory diseases). Note: In the present specification, SEQ ID 1
CC   to 2280 are claimed in Claim 1, however only SEQ ID 1 to 2270 are shown
CC   in the specification
XX
SQ   Sequence 25 BP; 13 A; 3 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 25;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+03;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2176 TTTTTTTTTTTAACTTTG 2193
              ||||||||||| ||  ||
Db         25 TTTTTTTTTTTGACAATG 8


RESULT 5286
AAT90275/c
ID   AAT90275 standard; DNA; 27 BP.
XX
AC   AAT90275;
XX
DT   25-MAR-2003  (revised)
DT   03-DEC-1997  (first entry)
XX
DE   Pyrimidine ring modified triplex forming oligonucleotide ON-41.
XX
KW   Modification; triplex; duplex; nucleomonomer analogue; T antigen;
KW   unsaturated group; pyrimidine ring; inhibition; gene expression;
KW   antisense; therapy; research; diagnosis; probe; primer; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .27
FT                    /*tag=  a
FT                    /note= "all C are 5-methyl-2'-deoxycytidine all U are 5-
FT                    (1-propynyl)-2'-deoxyuridine"
FT   misc_feature     20. .21
FT                    /*tag=  b
FT                    /note= "switchback linker synthon"
XX
PN   US5645985-A.
XX
PD   08-JUL-1997.
XX
PF   25-NOV-1992;   92US-00976103.
XX
PR   26-NOV-1991;   91US-00799824.
PR   25-AUG-1992;   92US-00935444.
PR   23-OCT-1992;   92US-00965941.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Jones RJ,  Gutierrez AJ,  Matteucci M,  Pudlo J;
PI   Wagner R;
XX
DR   WPI; 1997-362920/33.
XX
PT   Nucleo:monomers containing unsaturated pyrimidine base analogues - form
PT   oligomer duplexes or triplexes with nucleic acid under physiological
PT   conditions, and used in gene expression inhibition, diagnosis and assay.
XX
PS   Example 19; Col 133-134; 104pp; English.
XX
CC   The present sequence is a 5-methyl-2'-deoxycytidine/5-(1-propynyl)-
CC   2'deoxyuridine modified, T antigen, triplex forming oligonucleotide,
CC   comprising a switchback linker synthon and nucleomonomer analogues of
CC   cytosine and uridine containing an unsaturated group in the pyrimidine
CC   ring. The 5-substituent provides enhanced binding capacity in the
CC   formation of duplexes and triplexes with single and double stranded RNA
CC   and DNA. Triplexes can be formed at pH 7.0, i.e. under physiological pH
CC   conditions. The lipophilic groups can also enhance cell permeation and
CC   uptake. The oligomer, which also shows enhanced nuclease resistance, can
CC   be used to form duplexes and triplexes as a normal oligomer, to inhibit
CC   gene expression, e.g. by its antisense configuration, for therapeutic or
CC   research purposes, and for diagnosis by providing probes or primers for
CC   specific RNA or DNA. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 27 BP; 0 A; 6 C; 0 G; 0 T; 21 U; 0 Other;
```

```
  Query Match             0.5%;  Score 13.2;  DB 1;  Length 27;
  Best Local Similarity   69.2%;  Pred. No. 5.4e+03;
  Matches   18;  Conservative    0;  Mismatches    8;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAAAAAAAA 2804
              | ||  |||| | || |||||| | |
Db         26 AAAAAAGAAAGAGAAGAAAAAAGAGA 1


RESULT 5287
AAH91554/c
ID   AAH91554 standard; DNA; 28 BP.
XX
AC   AAH91554;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Human inflammatory bowel disease associated polymorphic site #629.
XX
KW   Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW   single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW   chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    20
FT                   /*tag=  a
FT                   /note= "SNP, optionally T or A at this position"
XX
PN   WO200142511-A2.
XX
PD   14-JUN-2001.
XX
PF   11-DEC-2000; 2000WO-US033632.
XX
PR   10-DEC-1999;   99US-0170257P.
PR   10-APR-2000; 2000US-0196046P.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI   Daly M,  Hudson TJ,  Lander ES,  Rioux J,  Siminovitch K;
XX
DR   WPI; 2001-367874/38.
XX
PT   Testing for the presence of polymorphisms associated with inflammatory
PT   bowel disease, using a hybridization assay.
XX
PS   Claim 1; Page 65; 463pp; English.
XX
CC   The present invention describes a method for detecting the presence of
CC   polymorphisms associated with inflammatory bowel diseases such as
CC   ulcerative colitis and Crohn's disease. The methods can be used to detect
CC   the presence of genetic polymorphisms associated with inflammatory bowel
CC   disease and correlating their occurrence with disease states. They may be
CC   used in this way for phenotypic correlations, forensics, paternity
CC   testing, medicine and genetic analysis. The present sequence is a
CC   polymorphic site described in the exemplification of the invention
XX
SQ   Sequence 28 BP; 5 A; 3 C; 0 G; 19 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 13.2;  DB 1;  Length 28;
  Best Local Similarity   78.9%;  Pred. No. 5.3e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||   || ||||||
Db         27 AAAAAAANGGAAGAAAAAA 9


RESULT 5288
ABQ83276
ID   ABQ83276 standard; DNA; 14 BP.
XX
AC   ABQ83276;
XX
DT   18-JAN-2003  (first entry)
XX
DE   EGI cDNA tag related oligonucleotide SEQ ID NO:49.
XX
KW   cDNA tag; identification; gene expression analysis; linker;
KW   expressed gene identification; EGI; ss.
XX
OS   Synthetic.
XX
PN   WO200274951-A1.
XX
PD   26-SEP-2002.
XX
PF   13-MAR-2002; 2002WO-JP002338.
XX
PR   15-MAR-2001; 2001JP-00073959.
XX
PA   (KURE ) KUREHA CHEM IND CO LTD.
PA   (YAMA/) YAMAMOTO M.
PA   (YAMA/) YAMAMOTO N.
XX
PI   Yamamoto M,  Yamamoto N,  Hirose K,  Kasai J;
XX
DR   WPI; 2002-759896/82.
XX
PT   Construction of cDNA tags for identifying expressed genes with specific
PT   linkers and recognition sequences, applicable in gene expression
PT   analysis, disease diagnosis and identifying target for gene therapy.
XX
PS   Example 1; Page 24; 59pp; Japanese.
XX
CC   The present invention describes a method for constructing a cDNA tag for
CC   identifying an expressed gene. The method comprises: (a) preparation of
CC   complementary deoxyribonucleic acid; (b) producing cDNA fragment by
CC   cleavage with II type restriction enzyme; (c) obtaining a linker X-cDNA
CC   fragment ligated material; (d) amplification of the linker X-cDNA tag-
CC   linker Y ligated material; and (e) cleaving the amplification product.
CC   The method can be used for the construction of cDNA tags for identifying
CC   expressed genes, which is applicable in gene expression analysis, disease
CC   diagnosis and identifying target for gene therapy, including the
CC   clarification of difference in function or morphology of cells under
CC   physiological or pathological conditions. The cDNA or cells for assay can
CC   be specifically expressed, with reproducibility and accuracy in the
CC   detection of genes. The present sequence represents an expressed gene
CC   identification (EGI) cDNA tag related oligonucleotide which is used in an
CC   example from the present invention
XX
SQ   Sequence 14 BP; 0 A; 1 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 2.9e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTT 2178
              |||||||||||||
Db          1 TTTTTTTTTTTTT 13


RESULT 5289
ABQ83275/c
ID   ABQ83275 standard; DNA; 14 BP.
XX
AC   ABQ83275;
XX
DT   18-JAN-2003  (first entry)
XX
DE   EGI cDNA tag related oligonucleotide SEQ ID NO:48.
XX
```

```
KW   cDNA tag; identification; gene expression analysis; linker;
KW   expressed gene identification; EGI; ss.
XX
OS   Synthetic.
XX
PN   WO200274951-A1.
XX
PD   26-SEP-2002.
XX
PF   13-MAR-2002; 2002WO-JP002338.
XX
PR   15-MAR-2001; 2001JP-00073959.
XX
PA   (KURE ) KUREHA CHEM IND CO LTD.
PA   (YAMA/) YAMAMOTO M.
PA   (YAMA/) YAMAMOTO N.
XX
PI   Yamamoto M,  Yamamoto N,  Hirose K,  Kasai J;
XX
DR   WPI; 2002-759896/82.
XX
PT   Construction of cDNA tags for identifying expressed genes with specific
PT   linkers and recognition sequences, applicable in gene expression
PT   analysis, disease diagnosis and identifying target for gene therapy.
XX
PS   Example 1; Page 24; 59pp; Japanese.
XX
CC   The present invention describes a method for constructing a cDNA tag for
CC   identifying an expressed gene. The method comprises: (a) preparation of
CC   complementary deoxyribonucleic acid; (b) producing cDNA fragment by
CC   cleavage with II type restriction enzyme; (c) obtaining a linker X-cDNA
CC   fragment ligated material; (d) amplification of the linker X-cDNA tag-
CC   linker Y ligated material; and (e) cleaving the amplification product.
CC   The method can be used for the construction of cDNA tags for identifying
CC   expressed genes, which is applicable in gene expression analysis, disease
CC   diagnosis and identifying target for gene therapy, including the
CC   clarification of difference in function or morphology of cells under
CC   physiological or pathological conditions. The cDNA or cells for assay can
CC   be specifically expressed, with reproducibility and accuracy in the
CC   detection of genes. The present sequence represents an expressed gene
CC   identification (EGI) cDNA tag related oligonucleotide which is used in an
CC   example from the present invention
XX
SQ   Sequence 14 BP; 1 A; 0 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 2.9e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         13 AAAAAAAAAAAAA 1


RESULT 5290
ABQ83271
ID   ABQ83271 standard; DNA; 14 BP.
XX
AC   ABQ83271;
XX
DT   18-JAN-2003  (first entry)
XX
DE   EGI cDNA tag related oligonucleotide SEQ ID NO:44.
XX
KW   cDNA tag; identification; gene expression analysis; linker;
KW   expressed gene identification; EGI; ss.
XX
OS   Synthetic.
XX
PN   WO200274951-A1.
XX
PD   26-SEP-2002.
XX
PF   13-MAR-2002; 2002WO-JP002338.
XX
PR   15-MAR-2001; 2001JP-00073959.
XX
PA   (KURE ) KUREHA CHEM IND CO LTD.
PA   (YAMA/) YAMAMOTO M.
PA   (YAMA/) YAMAMOTO N.
XX
PI   Yamamoto M,  Yamamoto N,  Hirose K,  Kasai J;
XX
DR   WPI; 2002-759896/82.
XX
PT   Construction of cDNA tags for identifying expressed genes with specific
PT   linkers and recognition sequences, applicable in gene expression
PT   analysis, disease diagnosis and identifying target for gene therapy.
XX
PS   Example 1; Page 24; 59pp; Japanese.
XX
CC   The present invention describes a method for constructing a cDNA tag for
CC   identifying an expressed gene. The method comprises: (a) preparation of
CC   complementary deoxyribonucleic acid; (b) producing cDNA fragment by
CC   cleavage with II type restriction enzyme; (c) obtaining a linker X-cDNA
CC   fragment ligated material; (d) amplification of the linker X-cDNA tag-
CC   linker Y ligated material; and (e) cleaving the amplification product.
CC   The method can be used for the construction of cDNA tags for identifying
CC   expressed genes, which is applicable in gene expression analysis, disease
CC   diagnosis and identifying target for gene therapy, including the
CC   clarification of difference in function or morphology of cells under
CC   physiological or pathological conditions. The cDNA or cells for assay can
CC   be specifically expressed, with reproducibility and accuracy in the
CC   detection of genes. The present sequence represents an expressed gene
CC   identification (EGI) cDNA tag related oligonucleotide which is used in an
CC   example from the present invention
XX
SQ   Sequence 14 BP; 13 A; 0 C; 1 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 2.9e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         1 AAAAAAAAAAAAA 13


RESULT 5291
ABX79769
ID   ABX79769 standard; cDNA; 14 BP.
XX
AC   ABX79769;
XX
DT   17-APR-2003  (first entry)
XX
DE   EST polymorphic DNA repeat polynucleotide #94.
XX
KW   EST; expressed sequence tag; ss; polymorphic repeat; tandem repeat;
KW   polymorphic marker prediction of ubiquitous simple sequences; POMPOUS;
KW   Rep-X; human; genetic disease; drug-treatment; Machado-Joseph;
KW   Haw River syndrome; Huntington's disease; fragile-X syndrome;
KW   Fredreich's ataxis; myotonic dystrophy; hyperandrogenaemia;
KW   spinal atrophy; bulbar atrophy; spinocerebellar ataxia.
XX
OS   Homo sapiens.
XX
PN   US6472154-B1.
XX
PD   29-OCT-2002.
XX
PF   31-DEC-1999;   99US-00475947.
XX
PR   31-DEC-1999;   99US-00475947.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
```

XX
PI Garner HR, Wren JD, Minna JD, Fondon JW;
XX
DR WPI; 2003-208818/20.
XX
PT Identifying a candidate polymorphic repeat within a coding sequence, for
PT understanding or treating genetic disease, comprises detecting tandem
PT repeats in a target coding sequence and scoring the repeats for
PT polymorphic probability.
XX
PS Example; Col 343; 588pp; English.
XX
CC The invention discloses a method for identifying a candidate polymorphic
CC repeat within a coding sequence (expressed sequence tag, EST), which
CC comprises detecting tandem repeats in a target coding sequence, scoring
CC the repeats for polymorphic probability and generating a dataset
CC correlating the repeats with polymorphic probability to identify a
CC candidate polymorphic repeat. The computational methods (polymorphic
CC marker prediction of ubiquitous simple sequences, POMPOUS, and Rep-X) are
CC useful for identifying and detecting candidate polymorphic repeats in
CC human genes, which can be used to understand, treat or eliminate genetic
CC diseases, predispositions or adverse drug-treatment reactions. Examples
CC of diseases linked to nucleotide repeats are Machado-Joseph, Haw River
CC syndrome, Huntington's disease, fragile-X syndrome, Fredreich's ataxis,
CC myotonic dystrophy, hyperandrogenaemia, spinal and bulbar atrophy and
CC spinocerebellar ataxia. The sequences presented in ABX79676-ABX80022 are
CC the polymorphic repeats identified for a search of human ESTs
XX
SQ Sequence 14 BP; 0 A; 1 C; 0 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 14;
Best Local Similarity 100.0%; Pred. No. 2.9e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTT 2178
|||||||||||||
Db 1 TTTTTTTTTTTTT 13

RESULT 5292
AAX18361
ID AAX18361 standard; DNA; 15 BP.
XX
AC AAX18361;
XX
DT 11-MAY-1999 (first entry)
XX
DE RT-PCR primer of the invention SEQ ID 2.
XX
KW RT-PCR primer; DNA sequence determination; gene sequence analysis; ss.
XX
OS Synthetic.
XX
PN JP11032765-A.
XX
PD 09-FEB-1999.
XX
PF 18-JUL-1997; 97JP-00208312.
XX
PR 18-JUL-1997; 97JP-00208312.
XX
PA (TAKI) TAKARA SHUZO CO LTD.
XX
DR WPI; 1999-183822/16.
XX
PT Peptides having at least two new nucleotides - useful as primers in RT-
PT PCR.
XX
PS Disclosure; Page 10; 19pp; Japanese.
XX
CC This sequence represents a primer of the invention. The invention relates
CC to sequences of at least two nucleotides of formula: (X)m5'-(alpha)n-beta
CC -N3'; or (X)m5'-(gamma)k-delta-N3'; where X = a labelled compound and/or
CC a nucleotide with voluntary sequence; m = 0 or 1; alpha = thymine; n =
CC natural number indicating the repetition of alpha; beta, delta = V or N;
CC V = adenine, guanine or cytosine; N = adenine, guanine, cytosine or
CC thymine; gamma = thymine; k = natural number of 3 or over indicating the
CC repetition of gamma, in which thymine expressed by gamma is composed of
CC 1/3 or less of adenine, guanine and/or cytosine. The new nucleotides are
CC useful as primers for RT-PCR and determination of base sequences. The new
CC sequences allow for reproductive and highly efficient analysis of gene
CC sequences
XX
SQ Sequence 15 BP; 0 A; 2 C; 0 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 3.3e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2166 TTTTTTTTTTTTT 2178
|||||||||||||
Db 1 TTTTTTTTTTTTT 13

RESULT 5293
AAX69797/c
ID AAX69797 standard; RNA; 17 BP.
XX
AC AAX69797;
XX
DT 28-JUL-1999 (first entry)
XX
DE Human flt1 VEGF receptor hammerhead ribozyme substrate #1092.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Homo sapiens.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 79; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 1 A; 2 C; 0 G; 0 T; 14 U; 0 Other;

```
  Query Match             0.5%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 4.2e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         17 AAAAAAAAAAAAA 5


RESULT 5294
ADC64943/c
ID   ADC64943 standard; DNA; 18 BP.
XX
AC   ADC64943;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Camellia sinensis L. (O.) Kuntze related PCR primer T11G.
XX
KW   Camellia sinensis L.(O.) Kuntze; tea tree; PCR primer; ss.
XX
OS   Synthetic.
OS   Camellia sinensis.
XX
PN   CN1377966-A.
XX
PD   06-NOV-2002.
XX
PF   30-MAR-2001; 2001CN-00112459.
XX
PR   30-MAR-2001; 2001CN-00112459.
XX
PA   (SCIN-) SCI & IND RES COMMISSION.
XX
DR   WPI; 2003-230959/23.
XX
PT   Cloning of a new gene sequence expressed and inhibited during winter
PT   dormancy of a tea tree top plumelet, comprises identification, cloning
PT   and analysis of a new primer in the gene sequence.
XX
PS   Example 3; Page 32; 66pp; Chinese.
XX
CC   The present invention describes the cloning of a new gene sequence
CC   expressed and inhibited during hibernation of the top plumelet of a
CC   Camellia sinensis L.(O.) Kuntze tea tree. Also described is the
CC   identification, cloning and analysis of a primer terminal in the gene
CC   sequence expressed and inhibited during hibernation of the top plumelet
CC   of the tea tree. The present sequence represents a PCR primer which is
CC   used in an example from the present invention.
XX
SQ   Sequence 18 BP; 2 A; 1 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.6e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         17 AAAAAAAAAAAAA 5


RESULT 5295
ADC64941/c
ID   ADC64941 standard; DNA; 18 BP.
XX
AC   ADC64941;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Camellia sinensis L. (O.) Kuntze related PCR primer T11A.
XX
KW   Camellia sinensis L.(O.) Kuntze; tea tree; PCR primer; ss.
XX
OS   Synthetic.
OS   Camellia sinensis.
XX
PN   CN1377966-A.
XX
PD   06-NOV-2002.
XX
PF   30-MAR-2001; 2001CN-00112459.
XX
PR   30-MAR-2001; 2001CN-00112459.
XX
PA   (SCIN-) SCI & IND RES COMMISSION.
XX
DR   WPI; 2003-230959/23.
XX
PT   Cloning of a new gene sequence expressed and inhibited during winter
PT   dormancy of a tea tree top plumelet, comprises identification, cloning
PT   and analysis of a new primer in the gene sequence.
XX
PS   Example 3; Page 32; 66pp; Chinese.
XX
CC   The present invention describes the cloning of a new gene sequence
CC   expressed and inhibited during hibernation of the top plumelet of a
CC   Camellia sinensis L.(O.) Kuntze tea tree. Also described is the
CC   identification, cloning and analysis of a primer terminal in the gene
CC   sequence expressed and inhibited during hibernation of the top plumelet
CC   of the tea tree. The present sequence represents a PCR primer which is
CC   used in an example from the present invention.
XX
SQ   Sequence 18 BP; 3 A; 1 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.6e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         17 AAAAAAAAAAAAA 5


RESULT 5296
AAC83562/c
ID   AAC83562 standard; DNA; 19 BP.
XX
AC   AAC83562;
XX
DT   28-FEB-2001  (first entry)
XX
DE   DNA synthesis method linker/primer sequence SEQ ID NO: 1.
XX
KW   DNA synthesis; directional complementary DNA library; linker; PCR primer;
KW   ss.
XX
OS   Synthetic.
XX
PN   US6143531-A.
XX
PD   07-NOV-2000.
XX
PF   22-JUL-1997;   97US-00899029.
XX
PR   19-SEP-1988;   88US-00246567.
PR   02-MAY-1991;   91US-00700066.
PR   23-NOV-1992;   92US-00981931.
PR   02-SEP-1993;   93US-00116049.
XX
PA   (STRA-) STRATAGENE.
XX
PI   Hansen CJ,  Huse WD;
XX
DR   WPI; 2001-006435/01.
XX
```

PT Double stranded DNA synthesis with specific orientation comprises
PT synthesizing a first strand of DNA complementary to a selected DNA or RNA
PT template and synthesizing second strand complementary to first one.
XX
PS Example 1; Fig 1; 14pp; English.
XX
CC The present invention describes an improved method of DNA synthesis which
CC provides double stranded DNA where the predetermined orientation of the
CC sequence is preserved. This can be used in the construction of
CC complementary DNA and directional DNA libraries
XX
SQ Sequence 19 BP; 1 A; 2 C; 2 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 19;
Best Local Similarity 100.0%; Pred. No. 4.9e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAA 2798
||||||||||||||
Db 19 AAAAAAAAAAAAA 7

RESULT 5297
ABZ92288
ID ABZ92288 standard; DNA; 20 BP.
XX
AC ABZ92288;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 7530; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 5 C; 1 G; 12 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 5.2e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2164 CCTTTTTTTTTTT 2176
||||||||||||||
Db 1 CCTTTTTTTTTTT 13

RESULT 5298
AAZ74552/c
ID AAZ74552 standard; DNA; 20 BP.
XX
AC AAZ74552;
XX
DT 10-SEP-2001 (first entry)
XX
DE Human biallelic marker downstream amplification primer SEQ ID NO:8908.
XX
KW Human genome; biallelic marker; high density disequilibrium map;
KW genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW haplotyping; hybridisation; identification; characterisation;
KW amplification; single nucleotide polymorphism; SNP; PCR primer;
KW diagnosis; ss.
XX
OS Homo sapiens.
XX
PN WO9954500-A2.
XX
PD 28-OCT-1999.
XX
PF 21-APR-1999; 99WO-IB000822.
XX
PR 21-APR-1998; 98US-0082614P.
PR 23-NOV-1998; 98US-0109732P.
XX
PA (GEST) GENSET.
XX
PI Cchen D, Blumenfeld M, Chumakov I;
XX
DR WPI; 2000-013267/01.
XX
PT Novel biallelic markers used to construct a high density disequilibrium
PT map of the human genome.
XX
PS Claim 8; Page 2130; 2745pp; English.
XX
CC AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC invention, which contain a polymorphic base at position 24 of their
CC nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC primers for the biallelic markers. The biallelic markers of the invention
CC have a variety of uses: they can be used for high density mapping of the
CC human genome, and in complex association studies and haplotyping studies
CC which are useful in determining the genetic basis for disease states.
CC Compositions and methods of the invention can also be useful for the
CC identification of the targets for the development of pharmaceutical
CC agents and diagnostic methods, as well as the characterisation of the
CC differential efficacious responses to and side effects from
CC pharmaceutical agents acting on a disease as well as other treatment.
CC N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and

```
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 20 BP; 11 A; 3 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 5.2e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1096 TGTTCATTTGGCT 1108
              |||||||||||||
Db         13 TGTTCATTTGGCT 1


RESULT 5299
AAH88904/c
ID   AAH88904 standard; DNA; 21 BP.
XX
AC   AAH88904;
XX
DT   27-FEB-2002  (first entry)
XX
DE   Human polymorphic oligonucleotide M33494 fragment #19.
XX
KW   Human; single nucleotide polymorphic; SNP; forensic science;
KW   paternity testing; phenotypic trait; genetic mapping; animal breeding;
KW   plant breeding; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Variation       replace(11,a)
FT                   /*tag=  a
FT                   /standard_name= "single nucleotide polymorphism"
XX
PN   WO200134840-A2.
XX
PD   17-MAY-2001.
XX
PF   10-NOV-2000; 2000WO-US030766.
XX
PR   10-NOV-1999;   99US-0164596P.
XX
PA   (GLAX ) GLAXO GROUP LTD.
PA   (AFFY-) AFFYMETRIX INC.
XX
PI   Au K,  Chen J,  Patil N,  Thomas D;
XX
DR   WPI; 2001-335945/35.
XX
PT   New polymorphic sites derived from the human genome are useful to
PT   determine sites correlating with phenotypic traits, particularly disease,
PT   and also in forensics and paternity testing.
XX
PS   Claim 37; Page 9; 43pp; English.
XX
CC   The present invention relates to human oligonucleotides comprising a
CC   single nucleotide polymorphic site (SNP: AAH88797-AAH89219). The present
CC   sequence is one such oligonucleotide. The oligonucleotides can be used in
CC   forensics, paternity testing, correlation of polymorphisms with
CC   phenotypic traits, genetic mapping of phenotypic traits and marker
CC   assisted breeding of animals and crop plants
XX
SQ   Sequence 21 BP; 2 A; 7 C; 10 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 21;
  Best Local Similarity   76.2%;  Pred. No. 5.4e+03;
  Matches   16;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        447 CGCCCACAGGCAGCCAGCAGC 467
              |||||  |  ||||||||  ||
Db         21 CGCCCGCCTGCAGCCAGGTGC 1


RESULT 5300
AAQ61989/c
ID   AAQ61989 standard; DNA; 21 BP.
XX
AC   AAQ61989;
XX
DT   25-MAR-2003  (revised)
DT   04-NOV-1994  (first entry)
XX
DE   HIV replication inhibiting oligomer, T13G4T4.
XX
KW   Inhibition; replication; herpes simplex virus; HSV; HIV; retard;
KW   human cytomegalovirus; influenza virus; inflammation; telomere length;
KW   neurological disorders; phospholipase A2 activity; hyperproliferation;
KW   malignancy; cardiovascular disease; snake bite; malignancy; aging; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "Labeled with 32P"
XX
PN   WO9408053-A1.
XX
PD   14-APR-1994.
XX
PF   29-SEP-1993;   93WO-US009297.
XX
PR   29-SEP-1992;   92US-00954185.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Hanecak RC,  Anderson KP,  Bennett CF,  Chiang M,  Brown-Driver VL;
PI   Ecker DJ,  Vickers TA,  Wyatt JR,  Imbach JL;
XX
DR   WPI; 1994-135613/16.
XX
PT   New modified oligo-nucleotide contg guanine quartet - inhibits activity
PT   of viruses, e.g. HIV, and phospholipase A2 and modulates telomere length
PT   of chromosomes.
XX
PS   Example 21; Page 60; 144pp; English.
XX
CC   This sequence may be used for inhibiting replication of human immuno-
CC   deficiency virus (HIV). Oligonucleotides such as this may also be used
CC   for inhibiting activity of HSV, human cytomegalovirus or influenza virus,
CC   or for treating inflammatory and neurological disorders caused by
CC   phospholipase A2 activity in cases of hyper- proliferation, malignancy,
CC   cardiovascular disease and snake bite. They may also be used for
CC   inhibiting division of malignant cells by modualting telomere length,
CC   which may also retard aging. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 4 G; 17 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 5.4e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         13 AAAAAAAAAAAAA 1


RESULT 5301
AAT35001/c
ID   AAT35001 standard; DNA; 21 BP.
XX
AC   AAT35001;
XX
DT   25-MAR-2003  (revised)
```

```
DT   03-DEC-1996  (first entry)
XX
DE   HIV inhibitor #4.
XX
KW   HIV; infection inhibitor; triplex forming; purine rich promoter; V3 loop;
KW   transcription inhibitor; gp120 protein; viral growth; enzyme inhibitor;
KW   PLA2; telomere length; glove coating; condom; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .21
FT                   /*tag= a
FT                   /note= "phosphorothioate nucleotides"
XX
PN   US5523389-A.
XX
PD   04-JUN-1996.
XX
PF   28-SEP-1993;   93US-00128011.
XX
PR   29-SEP-1992;   92US-00954185.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Imbach JL,  Ecker DJ,  Wyatt JR;
XX
DR   WPI; 1996-285782/29.
XX
PT   New octa:nucleotide with guanosine quartet and phosphoro:thioate links -
PT   is inhibitor of HIV infection by binding to the V3 loop.
XX
PS   Example 3; Col 8; 14pp; English.
XX
CC   AAT34998-T35001 represent HIV inhibitors. Sequences containing only G and
CC   T residues (such as these sequences) are triplex forming
CC   oligonucleotides, and form purine rich promoter elements used to inhibit
CC   transcription. These sequences bind to the HIV gp120 protein at the V3
CC   loop via the internal guanosine quartet. This binding prevents cell-to-
CC   cell and virus-to-cell infection. The sequences may also be used for
CC   inhibiting viral growth, and other viral genes, for inhibiting the enzyme
CC   PLA2, and to modulate telomere length. In some cases these sequences need
CC   to be chemically modified. The chemically modified oligonucleotides
CC   preferably include at least one phosphorothioate linkage. Other modified
CC   intersugar links, or 2'-modified sugar residues can also be used. These
CC   oligonucleotides can be used for coating gloves, condoms, etc, or for
CC   topical application. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 4 G; 17 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 5.4e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         13 AAAAAAAAAAAAA 1


RESULT 5302
AAZ26572/c
ID   AAZ26572 standard; DNA; 21 BP.
XX
AC   AAZ26572;
XX
DT   30-NOV-1999  (first entry)
XX
DE   Human polymorphic region 761.
XX
KW   Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW   cell viability; loss of heterozygosity; precancerous condition; ASI;
KW   allele specific inhibitor; somatic cell; diagnosis; prevention;
KW   atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW   dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW   graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS   Homo sapiens.
XX
PN   WO9841648-A2.
XX
PD   24-SEP-1998.
XX
PF   19-MAR-1998;   98WO-US005419.
XX
PR   20-MAR-1997;   97US-0041057P.
XX
PA   (VARI-) VARIAGENICS INC.
XX
PI   Housman D,  Ledley FD,  Stanton VP;
XX
DR   WPI; 1998-521232/44.
XX
PT   Identifying target genes for allele-specific drugs - used for diagnosis,
PT   prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT   dysplastic lesions, endometriosis or graft versus host disease.
XX
PS   Disclosure; Fig 7; 605pp; English.
XX
CC   This invention describes a novel method for identifying an inhibitor
CC   potentially useful for treatment of cancer, where the inhibitor is active
CC   on a gene vital for cell growth or viability, and where the gene is
CC   subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC   used for preventing the development of cancer in a patient having a
CC   precancerous condition, by administering to the patient a first allele
CC   specific inhibitor (ASI) targeted to an allele of a first essential gene
CC   present in cells of the precancerous condition, where the normal somatic
CC   cells of the patient are heterozygous for the first gene, the inhibitor
CC   is active on at least one but less than all allelic forms of the gene
CC   present in a population and targets only one allelic form present in the
CC   normal somatic cells, and the first gene. The products and methods can be
CC   used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC   cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC   lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC   graft versus host disease. The method can also be used to remove
CC   malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC   human polymorphic sites described in the method of the invention
XX
SQ   Sequence 21 BP; 13 A; 1 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 21;
  Best Local Similarity   76.2%;  Pred. No. 5.4e+03;
  Matches   16;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2175 TTTTTTTTTTTTAACTTTGAA 2195
              |||||||||  ||  |  |  ||  |
Db         21 TTTTTTTTTATTCAATCTGCA 1


RESULT 5303
AAV58375/c
ID   AAV58375 standard; DNA; 22 BP.
XX
AC   AAV58375;
XX
DT   26-NOV-1998  (first entry)
XX
DE   Biotinylated primer for mouse thymus and spleen mRNA.
XX
KW   PCR primer; differential mRNA expression; gene expression analysis;
KW   thymus; spleen; mouse; mRNA expression detection; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
```

```
FT                   /*tag=  a
FT                   /note= "biotinylated"
XX
PN   US5814445-A.
XX
PD   29-SEP-1998.
XX
PF   11-JUL-1995;   95US-00499899.
XX
PR   11-JUL-1994;   94RU-00024056.
XX
PA   (NYBL-) NEW YORK BLOOD CENTER INC.
XX
PI   Ivanova NB,  Belyavsky AV;
XX
DR   WPI; 1998-541742/46.
XX
PT   Identification of differential mRNA expression - based on signal
PT   intensities from separated cDNA restriction fragments.
XX
PS   Example; Col 7; 15pp; English.
XX
CC   This sequence represents a PCR primer used in the method of the
CC   invention. The method is for the identification of differential mRNA
CC   expression among two or more different sources, comprises: (a) obtaining
CC   mRNA samples from two or more sources; (b) synthesising a set of double
CC   stranded cDNA from each of the mRNA samples; (c) generating a set of cDNA
CC   fragments for each sample by cleaving the sets of cDNA with at least one
CC   restriction endonuclease; (d) separating cDNA fragments obtained through
CC   step (c) by gel electrophoresis; (e) obtaining pictures of the separated
CC   cDNA fragments; (f) comparing pictures of separated cDNA fragments, and
CC   (g) identifying specific cDNA fragments exhibiting different signal
CC   intensities in the pictures of separated cDNA fragments, where
CC   differential signal intensity of the cDNA fragments is indicative of
CC   differential expression of mRNA species among the sources. This primer
CC   was specifically used to differentiate between mRNA differentially
CC   expressed in mouse thymus and spleen. The method is useful in medicine
CC   and molecular biology for analysis of gene expression and diagnosis and
CC   identification of mechanisms of pathology at the genetic level
XX
SQ   Sequence 22 BP; 1 A; 3 C; 5 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 5.6e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         22 AAAAAAAAAAAAA 10


RESULT 5304
AAA99617/c
ID   AAA99617 standard; DNA; 22 BP.
XX
AC   AAA99617;
XX
DT   22-JAN-2001  (first entry)
XX
DE   (T)-primer for first strand cDNA synthesis.
XX
KW   cDNA synthesis; gene expression analysis; genetic diagnosis; primer; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /note= "labelled with biotin"
XX
PN   US6120996-A.
XX
PD   19-SEP-2000.
XX
PF   06-NOV-1997;   97US-00964143.
XX
PR   11-JUL-1994;   94RU-00024056.
PR   11-JUL-1995;   95US-00499899.
XX
PA   (NYBL-) NEW YORK BLOOD CENT INC.
XX
PI   Ivanova NB,  Belyavsky AV;
XX
DR   WPI; 2000-627874/60.
XX
PT   Identifying differentially expressed messenger RNAs, useful for analyzing
PT   gene expression or identifying mechanisms of pathology, comprises
PT   assessing amounts of separated complementary DNA fragments corresponding
PT   to the mRNA.
XX
PS   Example; Col 7; 15pp; English.
XX
CC   The present sequence is a primer used for first strand synthesis of cDNA
CC   molecules from RNA extracted from mouse thymus and spleen. This was
CC   performed as part of novel method for identifying differentially
CC   expressed mRNA. The method comprises synthesising sets of fragments of
CC   cDNA from a set of mRNA sequences, assessing the amounts of cDNA
CC   fragments corresponding to the mRNA species, and comparing the signal
CC   intensity from the separated cDNA fragments. The method is useful for the
CC   analysis of gene expression and the diagnosis and identification of
CC   genetic mechanisms of pathology. Unlike RT-PCR using arbitrary primers,
CC   many sequences are amplified in a single reaction. The method is more
CC   reproducible than prior art, allowing for a reliable comparison to be
CC   made with independently conducted experiments. The method also makes it
CC   possible to eliminate the excess of information that is characteristic
CC   for the method with arbitrary primers
XX
SQ   Sequence 22 BP; 1 A; 3 C; 5 G; 13 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 13;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 5.6e+03;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         22 AAAAAAAAAAAAA 10


RESULT 5305
AAL56810/c
ID   AAL56810 standard; DNA; 22 BP.
XX
AC   AAL56810;
XX
DT   06-NOV-2003  (first entry)
XX
DE   T(13) bio-primer oligonucleotide to synthesise the first cDNA strand.
XX
KW   PCR; primer; ss; differential expression; gene expression analysis;
KW   signal intensity; T(13) bio-primer; mouse; murine.
XX
OS   Mus sp.
XX
PN   US2003017490-A1.
XX
PD   23-JAN-2003.
XX
PF   18-JUN-2002; 2002US-00173509.
XX
PR   11-JUL-1994;   94RU-00024056.
PR   11-JUL-1995;   95US-00499899.
PR   06-NOV-1997;   97US-00964143.
PR   11-FEB-1999;   99US-00247871.
PR   18-SEP-2000; 2000US-00664534.
XX
PA   (NYBL-) NEW YORK BLOOD CENT INC.
XX
```

PI Belyavsky AV, Ivanova NB;
XX
DR WPI; 2003-584989/55.
XX
PT Identifying differentially expressed mRNA, by separating cDNAs
PT synthesized from mRNA of various cells by electrophoresis, comparing the
PT separation pictures, identifying fragments with differential signal
PT intensities.
XX
PS Example; Fig 1; 13pp; English.
XX
CC This invention relates to a novel method for identifying differentially
CC expressed mRNA molecules. It comprises synthesising cDNA molecules from
CC sets of mRNA fragments derived from different cell types and separating
CC the resultant cDNAs by gel electrophoresis. By comparison of these
CC separation pictures it is possible to identify those cDNA fragments that
CC exhibit differential signal intensities between various cell types.
CC Furthermore, those cDNA molecules identified as being differentially
CC expressed can be amplified and cloned as required. For the formation of a
CC set of fragments, the cDNA is cleaved by restriction endonucleases, such
CC that the fragments specifically correspond to the 3' or 5' end regions of
CC the mRNA molecules. The method of this invention can be useful in
CC medicine for diagnostic purposes, molecular biology for the analysis of
CC gene expression, as well as in the identification of pathology mechanisms
CC at a genetic level. This oligonucleotide sequence is the T(13) bio-primer
CC used to synthesise the first cDNA chain from the total RNA preparation,
CC extracted from the cell type of interest, a method of the invention
XX
SQ Sequence 22 BP; 1 A; 3 C; 5 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 5.6e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAA 2798
||||||||||||
Db 22 AAAAAAAAAAAAA 10

RESULT 5306
AAC96274/c
ID AAC96274 standard; DNA; 24 BP.
XX
AC AAC96274;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DPB1 gene PCR primer #6.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 48; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 24 BP; 4 A; 3 C; 4 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 24;
Best Local Similarity 76.2%; Pred. No. 5.7e+03;
Matches 16; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 2776 GTTAGAATTGAAAAAAAAAAA 2796
| | | | | ||||||||||
Db 21 GCTCGTAGTTAAAAAAAAAAA 1

RESULT 5307
AAC96374
ID AAC96374 standard; DNA; 25 BP.
XX
AC AAC96374;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DPB1 gene PCR primer #106.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 50; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 4 A; 6 C; 2 G; 13 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 25;
Best Local Similarity 76.2%; Pred. No. 5.6e+03;
Matches 16; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

```
Qy       2175 TTTTTTTTTTTTAACTTTGAA 2195
              ||||||||||||  | |  ||
Db          1 TTTTTTTTTTTTCCCCTCCAA 21
```

RESULT 5308
AAC96070/c
ID AAC96070 standard; DNA; 25 BP.
XX
AC AAC96070;
XX
DT 26-FEB-2001 (first entry)
XX
DE 16s rRNA gene PCR primer #37.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 45; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 2 A; 2 C; 6 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 13; DB 1; Length 25;
Best Local Similarity 100.0%; Pred. No. 5.6e+03;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       2786 AAAAAAAAAAAAA 2798
              |||||||||||||
Db         13 AAAAAAAAAAAAA 1
```

RESULT 5309
AAX69805
ID AAX69805 standard; RNA; 17 BP.
XX
AC AAX69805;
XX
DT 28-JUL-1999 (first entry)
XX
DE Human flt1 VEGF receptor hammerhead ribozyme substrate #1100.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Homo sapiens.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 80; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 3 A; 2 C; 0 G; 0 T; 12 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 17;
Best Local Similarity 12.5%; Pred. No. 4.5e+03;
Matches 2; Conservative 12; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2173 TTTTTTTTTTTTTAA 2188
              ::::::::::::  ||
Db          1 UUUUUUUUUUUUCCAA 16
```

RESULT 5310
AAQ20006
ID AAQ20006 standard; DNA; 17 BP.
XX
AC AAQ20006;
XX
DT 01-APR-1992 (first entry)
XX
DE Oligonucleotide #2 able to covalently cross-link to target DNA.
XX
KW deoxyribonucleic acid; major groove; ethanoamino group;
KW aziridinylcytosine; cross-linking group; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 8
FT /*tag= b
FT /mod_base= m5c
FT modified_base 14
FT /*tag= c
FT /mod_base= m5c
FT modified_base 17

```
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 2; Page 20; 42pp; English.
XX
CC   The 3' end of this oligonucleotide carries 1,3-propanediol. The oligo is
CC   one of four oligonucleotides which were designed to specifically bind and
CC   cross-link to the duplex target sequence AAQ20004. Oligo #2 has the
CC   covalent cross-linking group, i.e. N4N4-ethanocytosine, at its 3' end. An
CC   assay for crosslinked triple helix showed considerable reaction with
CC   Oligo #2 and with Oligo #1 (see AAQ20005) which has the crosslinking
CC   group at the 5' end. The most complete reaction was seen with Oligo #3
CC   (see AAQ20007) having N4N4-ethanocytosine at both the 5' and 3' termini.
CC   A control oligo with no cross-linking group showed no reaction. The half-
CC   life of the cross-linking reaction for Oligo #2 was ca. 1 hr (1 microM);
CC   Oligo #1 showed a rate four times slower. See also AAQ20008
XX
SQ   Sequence 17 BP; 0 A; 3 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTT 2181
             ||||||| ||||| ||
Db          1 TTTTTTCTTTTTCTT 16


RESULT 5311
AAQ20005/c
ID   AAQ20005 standard; DNA; 17 BP.
XX
AC   AAQ20005;
XX
DT   01-APR-1992  (first entry)
XX
DE   Oligonucleotide #1 able to covalently cross-link to target DNA.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group;
KW   aziridinylcytosine; cross-linking group; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N4N4-ethanocytosine"
FT   modified_base   9
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   modified_base   15
FT                   /*tag=  c
FT                   /mod_base= m5c
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   25-MAY-1990;   90US-00529346.
XX
PR   25-MAY-1990;   90US-00529346.
PR   14-JAN-1991;   91US-00640654.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents - bind to
PT   the major groove of duplex DNA and are esp. useful for treating latent
PT   infections e.g. HIV.
XX
PS   Example 2; Page 20; 42pp; English.
XX
CC   The 3' end of this oligonucleotide carries 1,3-propanediol. The oligo is
CC   one of four oligonucleotides which were designed to specifically bind and
CC   cross-link to the duplex target sequence AAQ20004. Oligo #1 has the
CC   covalent cross-linking group, i.e. N4N4-ethanocytosine, at its 5' end. An
CC   assay for crosslinked triple helix showed considerable reaction with
CC   Oligo #1 and with Oligo #2 (see AAQ20006) which has the crosslinking
CC   group at the 3' end. The most complete reaction was seen with Oligo #3
CC   (see AAQ20007) having N4N4-ethanocytosine at both the 5' and 3' termini.
CC   A control oligo with no cross-linking group showed no reaction. The half-
CC   life of the cross-linking reaction for Oligo #2 was ca. 1 hr (1 microM);
CC   Oligo #1 showed a rate four times slower. See also AAQ20008
XX
SQ   Sequence 17 BP; 0 A; 3 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2801
              || ||||| |||||||
Db         17 AAGAAAAAGAAAAAAA 2


RESULT 5312
AAA22975
ID   AAA22975 standard; RNA; 17 BP.
XX
AC   AAA22975;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6201.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US006507.
```

```
XX
PR   27-MAR-1998;   98US-0079678P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  Mcswiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or stability
PT   of an mRNA encoding an angiogenic factors.
XX
PS   Claim 54; Page 254; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with RNA
CC   cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ   Sequence 17 BP; 14 A; 0 C; 0 G; 0 T; 3 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2801
                ||||| |||||||||
Db          2 AAAAAUUAAAAAAAAA 17


RESULT 5313
AAA25444/c
ID   AAA25444 standard; DNA; 17 BP.
XX
AC   AAA25444;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1942.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2801
                ||||||||||  |||
Db         17 AAAAAAAAAAACTAAA 2


RESULT 5314
AAA25455/c
ID   AAA25455 standard; DNA; 17 BP.
XX
AC   AAA25455;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1953.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
```

PR 23-JUN-1998; 98US-00103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, Mcswiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target sequences,
PT used to treat cancer.
XX
PS Claim 77; Page 79; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
CC in vivo or by transforming cells ex vivo and implanting treated cells, or
CC for other conditions associated with levels of oestrogen receptor.
CC Because of the high selectivity for targeted RNA, (A) can also be used to
CC correlate inhibition of gene expression with alterations in phenotype,
CC particularly for identification of therapeutic targets, and as research
CC reagents (for RNA, in the same way that restriction endonucleases are
CC used with DNA). The combination of modifications in (A) improves
CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC AAA24748 to AAA25992 represent their corresponding target sequences.
CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.5e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2782 ATTGAAAAAAAAAAAA 2797
|| |||||||||||
Db 16 ATACAAAAAAAAAAAA 1

RESULT 5315
AAF02388
ID AAF02388 standard; DNA; 17 BP.
XX
AC AAF02388;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #683.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 37; Page 71; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 14 A; 0 C; 2 G; 1 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.5e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2801
|| |||| ||||||||
Db 1 AAGAAAATAAAAAAAA 16

RESULT 5316
ABS74957/c
ID ABS74957 standard; DNA; 17 BP.
XX
AC ABS74957;
XX
DT 24-DEC-2002 (first entry)
XX
DE Human PAPP-Ea associated 17-mer SEQ ID 483.
XX
KW PAPP-E; human; pregnancy associated plasma protein E; abortive;
KW contraceptive; gene therapy; vaccine; pregnancy; antenatal; diagnosis;
KW dysgenetic pregnancy; primer; ss.
XX
OS Homo sapiens.
XX
PN US2002102252-A1.
XX
PD 01-AUG-2002.
XX
PF 06-APR-2001; 2001US-00827998.
XX
PR 26-MAY-2000; 2000US-0207456P.
XX
PA (GUYY/) GU Y.
PA (SHAN/) SHANNON M E.
XX
PI Gu Y, Shannon ME;
XX
DR WPI; 2002-697817/75.
XX
PT New isolated nucleic acid encoding an isoform of human pregnancy
PT associated plasma protein E, for preventing or aborting pregnancy.
XX
PS Example 2; Page 138; 353pp; English.
XX
CC This invention describes a novel isolated nucleic acid that encodes one
CC of three new isoforms of human pregnancy associated plasma protein E,
CC hPAPP-E. The products of the invention have abortive and contraceptive
CC activity and can be used for gene therapy or in a vaccine. The nucleic
CC acid, polypeptide encoded by it, or antibody to the polypeptide can be
CC used in pharmaceutical compositions or vaccines for preventing or
CC aborting pregnancy. PAPP-E is used in the antenatal diagnosis of
CC dysgenetic pregnancies. The nucleic acids are used as probes to assess

```
CC   the level of PAPP-E isoform mRNA in chorionic villus samples, and the
CC   antibodies can be used to assess the expression levels of PAPP-E isoform
CC   proteins in chorionic villus samples, to diagnose dysgenetic pregnancies
CC   antenatally. This sequence represents an oligomer used in scanning the
CC   human PAPP-E genes described in the disclosure of the invention
XX
SQ   Sequence 17 BP; 14 A; 0 C; 3 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2163 TCCTTTTTTTTTTTTT 2178
              | |||| |||||||||
Db         17 TTCTTTCTTTTTTTTT 2

RESULT 5317
ABZ65528/c
ID   ABZ65528 standard; RNA; 17 BP.
XX
AC   ABZ65528;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #985.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 152; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 1 A; 0 C; 2 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2801
              ||||||| |||| |||
Db         16 AAAAAAACAAAACAAA 1

RESULT 5318
ABZ65527/c
ID   ABZ65527 standard; RNA; 17 BP.
XX
AC   ABZ65527;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #984.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 152; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 0 A; 1 C; 2 G; 0 T; 14 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.5e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2801
              ||| |||| |||||||
Db         17 AAACAAAACAAAAAAA 2

RESULT 5319
AAZ59379
ID   AAZ59379 standard; DNA; 19 BP.
XX
AC   AAZ59379;
```

```
XX
DT   05-APR-2000  (first entry)
XX
DE   Forward PCR primer 3 for STP2 exon 1A sequencing.
XX
KW   Single nucleotide polymorphism; SNP; STP2; phenol sulphotransferase;
KW   genotyping; human; drug metabolism; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9964630-A1.
XX
PD   16-DEC-1999.
XX
PF   09-JUN-1999;   99WO-US013094.
XX
PR   10-JUN-1998;   98US-0088710P.
XX
PA   (AXYS-) AXYS PHARM INC.
XX
PI   Guida M,  Kurth J;
XX
DR   WPI; 2000-105892/09.
XX
PT   Novel nucleic acid used for genotyping, e.g. to predict rate of drug
PT   metabolism.
XX
PS   Disclosure; Page 14; 46pp; English.
XX
CC   This sequence represents a PCR primer used in the sequencing of the exon
CC   1A region of human phenol sulphotransferase 2 (STP2). The invention
CC   relates to sequences AAZ59305-Z59352 which are fragments of the STP2
CC   gene. The fragments are from the 8 exons, the promoter region, 3' and 5'
CC   untranslated regions of the STP2 gene. Each of the sequences contains a
CC   newly identified STP2 gene single nucleotide polymorphism (SNP). STP2 is
CC   a phenol sulphotransferase. Substrates for STP2 include minoxidil,
CC   acetaminophen, and paranitrophenol. Several of the nucleotide changes
CC   identified at the polymorphism sites, give rise to an amino acid change.
CC   Amino acid changes may result in altered enzyme activity. The sequences
CC   can be used as probes for detecting STP2 polymorphisms. The polymorphic
CC   probes are used in screening and genotyping, i.e. to predict the rate of
CC   metabolism of STP2 substrates, potential drug-drug interactions and
CC   adverse side effects. They can also be used to detect diseases resulting
CC   from accidental or occupational exposure to toxins and to establish
CC   animal, cell or in vitro models for drug metabolism
XX
SQ   Sequence 19 BP; 13 A; 1 C; 5 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 19;
  Best Local Similarity   87.5%;  Pred. No. 5.2e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAA 2800
              ||||||||||||  ||
Db          3 GAAAAAAAAAAAGGAA 18


RESULT 5320
ABZ92287/c
ID   ABZ92287 standard; DNA; 20 BP.
XX
AC   ABZ92287;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 7529; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 0 A; 6 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAA 2800
              ||||||||||||  ||
Db         20 GAAAAAAAAAAAGGAA 5


RESULT 5321
ABX12581/c
ID   ABX12581 standard; DNA; 20 BP.
XX
AC   ABX12581;
XX
DT   10-MAY-2003  (first entry)
XX
DE   Human cytochrome P450, CYP3AX, PCR primer #7.
XX
KW   Human; cytochrome P450; CYP3AX; cancer; primer; ss.
XX
OS   Homo sapiens.
XX
PN   US2002160479-A1.
XX
```

```
PD   31-OCT-2002.
XX
PF   09-NOV-2001; 2001US-00007814.
XX
PR   30-MAY-2000; 2000US-00583447.
XX
PA   (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
XX
PI   Wojnowski L,  Gellner K,  Eiselt R;
XX
DR   WPI; 2003-288110/28.
XX
PT   New polynucleotide encoding a cytochrome P450 (CYP) 3AX polypeptide,
PT   useful for diagnosing or treating disorders related to the expression of
PT   a molecular variant CYP3AX gene, e.g. cancer.
XX
PS   Example 3; Page 18; 52pp; English.
XX
CC   The invention relates to a polynucleotide which encodes a cytochrome P450
CC   (CYP) 3AX polypeptide. The polynucleotide is useful in diagnosing or
CC   treating a disorder related to the expression of a molecular variant
CC   CYP3AX gene in a subject, such as cancer. It may also be used for
CC   identifying and obtaining drug candidates and inhibitors for therapy of
CC   disorders related to the malfunction of CYP3AX encoding genes. The
CC   present sequence represents a CYP3AX PCR primer of the invention
XX
SQ   Sequence 20 BP; 7 A; 4 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        757 CATTTCCATGACCAAG 772
              ||||||||||  | |||
Db         20 CATTTCCATGGCAAAG 5


RESULT 5322
AAS03670/c
ID   AAS03670 standard; DNA; 20 BP.
XX
AC   AAS03670;
XX
DT   29-AUG-2001  (first entry)
XX
DE   PCR primer re012, used to detect RHD positive haplotypes.
XX
KW   Rhesus box; RHD positive; sequence length polymorphism; SSP; RHD; SMP1;
KW   RHCE; RHD negative; blood group typing; blood transfusion; antigen C;
KW   haemolytic disease of the newborn; chromosome 1 p34.1-p36; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200132702-A2.
XX
PD   10-MAY-2001.
XX
PF   31-OCT-2000; 2000WO-EP010745.
XX
PR   02-NOV-1999;   99EP-00121686.
PR   31-MAY-2000; 2000EP-00111696.
XX
PA   (DRKB-) DRK BLUTSPENDEDIENST BADEN WUERTTEMBERG.
XX
PI   Flegel WA,  Wagner FF;
XX
DR   WPI; 2001-291052/30.
XX
PT   New nucleic acid molecular structure, useful for detection of common RHD
PT   positive haplotypes in D-negative individuals, comprises RHD, SMP1 and
PT   RHCE genes.
XX
PS   Example 12; Page 66; 135pp; English.
XX
CC   The sequence represents PCR primer re012, used to detect RHD positive
CC   haplotypes in RHD negative individuals. The primer was used in DNA typing
CC   using PCR-sequence length polymorphism (SSP) of the Rhesus genes locus
CC   comprising the RHD, SMP1 and RHCE (all undefined) genes and/or the Rhesus
CC   box(es), preferably the hybrid Rhesus box, the upstream Rhesus box and/or
CC   the downstream Rhesus box. The RHD and RHCE genes are located at
CC   chromosome 1 p34.1-p36. Rhesus box flanks the breakpoint region of the
CC   RHD deletion in the common RHD negative haplotypes. The primers of the
CC   invention are useful for: (1) the specific detection of the common RHD
CC   positive haplotypes in D-negative individuals; (2) blood group typing;
CC   (3) determining whether a patient can be transfused with RhD negative
CC   blood and whether blood is suitable for transfusion to patients who
CC   should not be exposed to antigen C; (4) assessing the risk of a RhD
CC   negative mother of conceiving or carrying an RhD positive foetus. Anti-D
CC   antibodies are useful for treating pregnant women who are Rhesus D
CC   negative, where the foetus is not homozygous for the RHD gene to treat or
CC   prevent haemolytic disease of the newborn
XX
SQ   Sequence 20 BP; 2 A; 11 C; 1 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1037 GCCGGGAGGCGGAAAG 1052
              || |||||| ||||||
Db         20 GCAGGGAGGTGGAAAG 5


RESULT 5323
AAA94533
ID   AAA94533 standard; DNA; 20 BP.
XX
AC   AAA94533;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20973 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Optionally the internucleotide linkages are
FT                   phosphorothioate"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
```

PI Cowsert LM;
XX
DR WPI; 2000-586346/55.
XX
PT New antisense compounds for modulating the expression of G-alpha-S1,
PT especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT prevent or delay infection, inflammation or tumor formation.
XX
PS Claim 3; Col 40; 37pp; English.
XX
CC The present invention relates to antisense compounds 8-30 bases long
CC targeted to a coding region, a stop codon, or a 3' untranslated region of
CC human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC hybridize with and inhibit the expression of human G-alpha-S1. The
CC antisense compounds are useful for diagnostics, therapeutics and
CC prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC formation. Particularly, the antisense oligonucleotides are useful for
CC treating humans prone to a disease or condition associated with
CC expression of G-alpha-S1. The present sequence an antisense
CC oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC S1
XX
SQ Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2268 TTATTTCAGATGTTTC 2283
|||||||| ||||||
Db 1 TTATTTCATTTGTTTC 16

RESULT 5324
ABZ99084/c
ID ABZ99084 standard; DNA; 20 BP.
XX
AC ABZ99084;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human PDE4C oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 14326; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAA 2801
||||| ||||| ||||
Db 16 AAAAATAAAAAGAAAA 1

RESULT 5325
ABZ87697
ID ABZ87697 standard; DNA; 20 BP.
XX
AC ABZ87697;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 2939; 872pp; English.

```
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 12 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAAA 2798
              || |||||||| ||||
Db          3 TTTAAAAAAAACAAAA 18


RESULT 5326
AAV42066/c
ID   AAV42066 standard; DNA; 20 BP.
XX
AC   AAV42066;
XX
DT   26-OCT-1998  (first entry)
XX
DE   Mouse alpha 3 connexin wild-type gene 3' PCR primer.
XX
KW   Alpha 3 connexin; A3C gene; mouse; lens; crystallin; cataract;
KW   knockout animal; PCR; primer; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   WO9830677-A1.
XX
PD   16-JUL-1998.
XX
PF   09-JAN-1998;   98WO-US000340.
XX
PR   10-JAN-1997;   97US-0034737P.
PR   15-MAY-1997;   97US-0046518P.
XX
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Gilula NB,  Gong X,  Kumar NM;
XX
DR   WPI; 1998-413684/35.
XX
PT   Disrupted alpha3 connexin genes - used to produce transgenic animals,
PT   useful for the study, prevention and treatment of cataracts.
XX
PS   Example 1; Page 30; 73pp; English.
XX
CC   3 Primers were used to examine wild-type or mutant alleles of the alpha 3
CC   connexin gene (see AAV32687) in embryonic stem (ES) cells of putative
CC   alpha 3 connexin gene knockout mice. The 5' primer (see AAV42065) was
CC   used with a 3' primer (AAV42066) for detecting the wild-type allele or
CC   with a 3' primer (see AAV42067) from the lacZ gene sequence to detect the
CC   alpha 3 gene disrupted allele. The absence of functional alpha 3 connexin
CC   protein (see AAW49009) in the knockout mice leads to age-related cataract
CC   formation. Such animals, or isolated lenses cultured in vitro, can be
CC   used in methods to identify compounds that affect cataract growth
XX
SQ   Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        737 ACAGTCATTCGCAAAG 752
              ||||||||  ||||||
Db         16 ACAGTCATCGGCAAAG 1


RESULT 5327
AAF99576/c
ID   AAF99576 standard; DNA; 20 BP.
XX
AC   AAF99576;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #692.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 53; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;
```

```
  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2179 TTTTTTTTAACTTTGA 2194
              ||||||| ||| ||||
Db         20 TTTTTTTCAACGTTGA 5


RESULT 5328
ABS78292/c
ID   ABS78292 standard; DNA; 20 BP.
XX
AC   ABS78292;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #776.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 33; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2179 TTTTTTTTAACTTTGA 2194
              ||||||| ||| ||||
Db         20 TTTTTTTCAACGTTGA 5


RESULT 5329
ABL38654/c
ID   ABL38654 standard; DNA; 20 BP.
XX
AC   ABL38654;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 9.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 97; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 20;
  Best Local Similarity   87.5%;  Pred. No. 5.4e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2179 TTTTTTTTAACTTTGA 2194
              ||||||| ||| ||||
Db         20 TTTTTTTCAACGTTGA 5


RESULT 5330
ABS70610/c
ID   ABS70610 standard; DNA; 20 BP.
XX
AC   ABS70610;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Dendritic cell stimulating CpG oligodeoxynucleotide #99.
```

XX
KW CpG; ss; dendritic cell; dendritic cell activation; cytostatic;
KW antiallergic; cancer; immunotherapy; infectious disease; allergy.
XX
OS Synthetic.
XX
PN US6429199-B1.
XX
PD 06-AUG-2002.
XX
PF 13-NOV-1998; 98US-00191170.
XX
PR 15-JUL-1994; 94US-00276358.
PR 07-FEB-1995; 95US-00386063.
PR 30-OCT-1996; 96US-00738652.
PR 30-OCT-1997; 97US-00960774.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Hartmann G;
XX
DR WPI; 2002-689667/74.
XX
PT Activating a dendritic cell for cancer immunotherapy or for treating
PT infectious or allergy disease, by contacting a dendritic cell with an
PT isolated nucleic acid containing at least one unmethylated CpG
PT dinucleotide.
XX
PS Example 6; Col 34; 52pp; English.
XX
CC This invention relates to a novel method for activating or causing
CC maturation of a dendritic cell. The method comprises contacting a
CC dendritic cell with an isolated nucleic acid containing at least one
CC unmethylated CpG dinucleotide in an amount effective to activate or cause
CC maturation of the dendritic cell, where the activation is performed ex
CC vivo. The method of the invention may have cytostatic or antiallergic
CC activities. The method of the invention is useful for cancer
CC immunotherapy or for treating an infectious disease or allergy, by
CC administering an activated dendritic cell that express a specific cancer,
CC microbial or allergy causing antigen, to a subject having a cancer
CC including the cancer antigen, to a subject having an infection with a
CC microorganism including the microbial antigen or to a subject having an
CC allergic reaction to the allergy causing antigen, where the activated
CC dendritic cell is prepared using the method of the invention. The method
CC is useful for generating a high yield of dendritic cells by administering
CC an isolated nucleic acid containing at least one unmethylated CpG
CC dinucleotide, where the nucleic acid is 8-80 bases in length in an amount
CC effective to activate the dendritic cells to a subject, and isolating
CC dendritic cells from the subject. The use of CpG allows the generation of
CC mature dendritic cells from peripheral blood within two days in a well
CC defined system. The application of CpG for this purpose is superior to
CC granulocyte macrophage-colony stimulating factor (GM-CSF), which is
CC currently used for this purpose. CpG oligonucleotides have a longer half
CC life, are less expensive, and show a greater magnitude of immune effects.
CC The present sequence represents a CpG oligonucleotide used in the method
CC of the invention
XX
SQ Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2179 TTTTTTTTAACTTTGA 2194
||||||| ||| ||||
Db 20 TTTTTTTCAACGTTGA 5

RESULT 5331
ACH03114/c
ID ACH03114 standard; DNA; 20 BP.
XX
AC ACH03114;
XX
DT 25-SEP-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #749.
XX
KW Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS Synthetic.
XX
PN US2003050268-A1.
XX
PD 13-MAR-2003.
XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.
PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 29; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2179 TTTTTTTTAACTTTGA 2194
||||||| ||| ||||
Db 20 TTTTTTTCAACGTTGA 5

RESULT 5332
ADB37078/c
ID ADB37078 standard; DNA; 20 BP.
XX
AC ADB37078;
XX
DT 04-DEC-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #692.
XX
KW ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW hypo-responsive subject; immunostimulatory.
XX
OS Synthetic.
XX
PN US2003087848-A1.
XX
PD 08-MAY-2003.
XX
PF 02-FEB-2001; 2001US-00776479.

XX
PR 03-FEB-2000; 2000US-0179991P.
XX
PA (BRAT/) BRATZLER R L.
PA (PETE/) PETERSEN D M.
PA (FOUR/) FOURON Y.
XX
PI Bratzler RL, Petersen DM, Fouron Y;
XX
DR WPI; 2003-657977/62.
XX
PT Treating and/or preventing allergy or asthma using an immunostimulatory
PT nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS Disclosure; Page 16; 221pp; English.
XX
CC The invention relates to a method of treating or preventing allergy or
CC asthma which comprises administering to a subject a poly-G nucleic acid
CC in an aerosol formulation. The methods and compositions of the present
CC invention are useful for diagnosing and/or treating asthma and allergy
CC especially in a hypo-responsive subject. The present sequence represents
CC an immunostimulatory nucleic acid of the invention.
XX
SQ Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2179 TTTTTTTTAACTTTGA 2194
||||||| ||| ||||
Db 20 TTTTTTTCAACGTTGA 5

RESULT 5333
AAD60260/c
ID AAD60260 standard; DNA; 20 BP.
XX
AC AAD60260;
XX
DT 18-DEC-2003 (first entry)
XX
DE Oligonucleotide 1638 used for activating dendritic cells.
XX
KW Dendritic cell activation; cancer immunotherapy; infectious disease;
KW allergy; cell therapy; ss.
XX
OS Unidentified.
XX
PN US2003100527-A1.
XX
PD 29-MAY-2003.
XX
PF 03-JUN-2002; 2002US-00161229.
XX
PR 15-JUL-1994; 94US-00276358.
PR 07-FEB-1995; 95US-00386063.
PR 30-OCT-1996; 96US-00738652.
PR 30-OCT-1997; 97US-00960774.
PR 13-NOV-1998; 98US-00191170.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Hartmann G;
XX
DR WPI; 2003-708674/67.
XX
PT Activating a dendritic cell useful for treating cancer, infectious
PT diseases or allergies, comprises contacting the dendritic cell with an
PT amount of an isolated nucleic acid that contains at least one
PT unmethylated CpG dinucleotide.
XX
PS Disclosure; Page 11; 51pp; English.
XX
CC The invention relates to a method of activating a dendritic cell. The
CC method involves contacting the dendritic cell with an isolated nucleic
CC acid containing at least one unmethylated CpG dinucleotide, where the
CC nucleic acid is about 8-80 bases in length, in an amount that activates
CC the dendritic cell. The compositions and methods of the invention are
CC useful for cancer immunotherapy, or for treating an infectious disease
CC (e.g. viral, bacterial or fungal infections) or allergy. The invention is
CC useful in cell therapy. The present sequence is an oligonucleotide used
CC for activating dendritic cells
XX
SQ Sequence 20 BP; 13 A; 2 C; 2 G; 3 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 20;
Best Local Similarity 87.5%; Pred. No. 5.4e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2179 TTTTTTTTAACTTTGA 2194
||||||| ||| ||||
Db 20 TTTTTTTCAACGTTGA 5

RESULT 5334
AAH91826/c
ID AAH91826 standard; DNA; 21 BP.
XX
AC AAH91826;
XX
DT 09-OCT-2001 (first entry)
XX
DE Human inflammatory bowel disease associated polymorphic site #901.
XX
KW Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT misc_feature 9
FT /*tag= a
FT /note= "SNP, optionally T or A at this position"
XX
PN WO200142511-A2.
XX
PD 14-JUN-2001.
XX
PF 11-DEC-2000; 2000WO-US033632.
XX
PR 10-DEC-1999; 99US-0170257P.
PR 10-APR-2000; 2000US-0196046P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
PA (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI Daly M, Hudson TJ, Lander ES, Rioux J, Siminovitch K;
XX
DR WPI; 2001-367874/38.
XX
PT Testing for the presence of polymorphisms associated with inflammatory
PT bowel disease, using a hybridization assay.
XX
PS Claim 1; Page 76; 463pp; English.
XX
CC The present invention describes a method for detecting the presence of
CC polymorphisms associated with inflammatory bowel diseases such as
CC ulcerative colitis and Crohn's disease. The methods can be used to detect
CC the presence of genetic polymorphisms associated with inflammatory bowel
CC disease and correlating their occurrence with disease states. They may be
CC used in this way for phenotypic correlations, forensics, paternity
CC testing, medicine and genetic analysis. The present sequence is a
CC polymorphic site described in the exemplification of the invention
XX

```
SQ   Sequence 21 BP; 1 A; 3 C; 0 G; 16 T; 0 U; 1 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 21;
  Best Local Similarity   82.4%;  Pred. No. 5.6e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2802
              ||||||||||||  | |
Db         21 AAAAAAAAAAAANGAGA 5


RESULT 5335
AAZ75372/c
ID   AAZ75372 standard; DNA; 21 BP.
XX
AC   AAZ75372;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:9728.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB000822.
XX
PR   21-APR-1998;   98US-0082614P.
PR   23-NOV-1998;   98US-0109732P.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome.
XX
PS   Claim 8; Page 2304; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the invention
CC   have a variety of uses: they can be used for high density mapping of the
CC   human genome, and in complex association studies and haplotyping studies
CC   which are useful in determining the genetic basis for disease states.
CC   Compositions and methods of the invention can also be useful for the
CC   identification of the targets for the development of pharmaceutical
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 21 BP; 0 A; 7 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 21;
  Best Local Similarity   87.5%;  Pred. No. 5.6e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAA 2800
              |||  ||||||||||

Db         21 GAAGGAAAAAAAAAAA 6


RESULT 5336
AAC83568
ID   AAC83568 standard; DNA; 23 BP.
XX
AC   AAC83568;
XX
DT   28-FEB-2001  (first entry)
XX
DE   Human FMR1 gene 5' untranslated region partial sequence SEQ ID NO: 3.
XX
KW   Human; FMR1; FMRP; Fragile X syndrome; methylation; diagnosis;
KW   chromosome Xq27.3; ds.
XX
OS   Homo sapiens.
XX
PN   US6143504-A.
XX
PD   07-NOV-2000.
XX
PF   27-OCT-1999;   99US-00429499.
XX
PR   27-OCT-1999;   99US-00429499.
XX
PA   (ARCH-) ARCH DEV CORP.
XX
PI   Das S,  Ledbetter DH;
XX
DR   WPI; 2001-006432/01.
XX
PT   Determining methylation state of FMR1 gene promoter for diagnosing
PT   fragile X syndrome in males involves denaturing DNA sample, subjecting
PT   DNA to bisulfite modification, amplifying DNA and detecting products.
XX
PS   Example 2; Fig 1; 20pp; English.
XX
CC   The present invention describes a novel method of diagnosing Fragile X
CC   syndrome using a PCR-based method of methylation analysis. The FMR1 gene
CC   promoter, located at chromosome Xq27.3, is composed of a CGG
CC   trinucleotide repeat. The expansion of this repeat leads to a premutation
CC   and then a full mutation, the latter of which is likely to cause the
CC   methylation of a nearby CpG island, causing the Fragile X syndrome
CC   phenotype. This method is useful in the design of appropriate therapies
CC   and counselling for affected individuals and carriers
XX
SQ   Sequence 23 BP; 1 A; 14 C; 6 G; 2 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 23;
  Best Local Similarity   87.5%;  Pred. No. 5.8e+03;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        410 GCGTACGCCGCCGCCA 425
              |||  ||||||||||
Db          1 GCGCCCGCCGCCGCCA 16


RESULT 5337
AAH28300/c
ID   AAH28300 standard; RNA; 23 BP.
XX
AC   AAH28300;
XX
DT   05-SEP-2001  (first entry)
XX
DE   3' untranslated region sequence from neuronal cadherin gene.
XX
KW   mRNA protein complex; tumour development; cell aging; death;
KW   ribonomic profile; RNA-binding protein; ss.
XX
OS   Unidentified.
XX
```

PN WO200148480-A1.
XX
PD 05-JUL-2001.
XX
PF 28-DEC-2000; 2000WO-US035583.
XX
PR 28-DEC-1999; 99US-0173338P.
XX
PA (KEEN/) KEENE J D.
XX
PI Keene JD, Tenenbaum SA, Carson C;
XX
DR WPI; 2001-425706/45.
XX
PT Partitioning endogenous mRNA-protein complexes in vivo, by contacting
PT sample comprising the complex with ligand that binds to a component of
PT the complex and separating complex by binding ligand with a binding
PT molecule.
XX
PS Example 6; Page 31; 49pp; English.
XX
CC The specification describes a method for partitioning endogenous cellular
CC mRNA-protein (mRNP) complexes. The method comprises contacting a
CC biological sample comprising mRNP complex with ligand that specifically
CC binds a component of mRNP complex, separating mRNP complex by binding the
CC ligand with a molecule specific for ligand, which is attached to the
CC solid support and then collecting the mRNP complex by removing the
CC complex from the support. The method is useful for in vivo partitioning
CC of cellular mRNA protein complexes in a biological sample. The method is
CC useful for determining the ribonomic profile of a cell which has numerous
CC uses including monitoring of tumour development, state of growth or state
CC of development, perturbations of a biological system such as disease,
CC drug or toxin treatment and the state of cell aging or death,
CC distinguishing ribonomic profiles among organisms, to discriminate
CC between transcriptional and post-transcriptional contributions to gene
CC expression and to track the movement of RNAs through RNP complexes,
CC including the interactions of combinations of proteins with RNAs in RNP
CC complexes. AAH28281-AAH28316 represent sequences derived from the 3'
CC untranslated region (UTR) of mRNA of various genes. The sequences contain
CC target sequences for RNA-binding proteins
XX
SQ Sequence 23 BP; 4 A; 0 C; 0 G; 0 T; 19 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 23;
Best Local Similarity 87.5%; Pred. No. 5.8e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAA 2801
||||||| ||||||
Db 23 AAAAAAAATTAAAAA 8

RESULT 5338
ABT05505
ID ABT05505 standard; DNA; 23 BP.
XX
AC ABT05505;
XX
DT 11-OCT-2002 (first entry)
XX
DE NOVX related probe SEQ ID No 179.
XX
KW Cytostatic; antidiabetic; anorectic; metabolic; nootropic; antilipaemic;
KW neuroprotective; antiparkinsonian; anticonvulsant; cerebroprotective;
KW tranquiliser; neuroleptic; antidiabetic; antiulcer; antiinflammatory;
KW anti-HIV; antiallergic; antirheumatic; antiarthritic; NOVX; diabetes;
KW metabolic disorder; obesity; infectious disease; Alzheimer's disease;
KW anorexia; neurodegenerative disorder; Parkinson's disorder; obesity;
KW immune disorder; haematopoietic disorder; dyslipidaemia; chronic disease;
KW metabolic syndrome X; wasting disorder; cancer; neurological disorder;
KW epilepsy; stroke; mental disorder; schizophrenic disorders; goiter;
KW vesicular transport; cystic fibrosis; gastrointestinal disorder;
KW diabetes mellitus; ulcerative colitis; AIDS; allergic reaction;
KW multiple sclerosis; rheumatoid arthritis; transgenic animal;
KW gene therapy; probe; ss.
XX
OS Unidentified.
XX
PN WO200246409-A2.
XX
PD 13-JUN-2002.
XX
PF 06-DEC-2001; 2001WO-US046586.
XX
PR 06-DEC-2000; 2000US-0251660P.
PR 12-DEC-2000; 2000US-0255029P.
PR 08-JAN-2001; 2001US-0260326P.
PR 24-JAN-2001; 2001US-0263800P.
PR 20-FEB-2001; 2001US-0269942P.
PR 24-APR-2001; 2001US-0286183P.
PR 20-AUG-2001; 2001US-0313627P.
PR 12-SEP-2001; 2001US-0318712P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Guo X, Li L, Patturajan M, Shimkets RA, Casman SJ, Malyankar UM;
PI Tchernev VT, Vernet CAM, Spytek KA, Shenoy SG, Alsobrook JP;
PI Edinger S, Peyman JA, Stone DJ, Ellerman K, Gangolli EA, Boldog FL;
PI Colman SD, Eisen AJ, Liu X, Padigaru M, Spaderna SK, Zerhusen BD;
XX
DR WPI; 2002-547774/58.
XX
PT Novel isolated polypeptide, designated NOVX, useful for treating or
PT preventing cancer, diabetes, obesity, dyslipidemia, anorexia, and
PT metabolic, neurodegenerative, immune and hematopoietic disorders.
XX
PS Example 2; Page 274; 421pp; English.
XX
CC The invention relates to an isolated polypeptide, designated NOVX,
CC comprising a sequence fully defined in the specification. The isolated
CC protein, its encoding polynucleotide or an antibody created from the
CC protein is useful in the manufacture of a medicament for treating a
CC syndrome associated with a human disease, preferably a NOVX-associated
CC disorder, or for treating or preventing a NOVX-associated disorder in a
CC subject, preferably human. The isolated protein, its encoding
CC polynucleotide or an antibody created from the protein are also useful
CC for treating or preventing metabolic disorders, diabetes, obesity,
CC infectious disease, anorexia, neurodegenerative disorder, Alzheimer's
CC disease, Parkinson's disorder, immune disorders, haematopoietic
CC disorders, and various dyslipidaemias, metabolic disturbances associated
CC with obesity, the metabolic syndrome X, wasting disorders associated with
CC chronic diseases, and cancer. The isolated protein, its encoding
CC polynucleotide or an antibody created from the protein are useful for
CC treating or preventing neurological disorders such as epilepsy, stroke,
CC mental disorders including mood, anxiety, schizophrenic disorders,
CC disorders of vesicular transport such as cystic fibrosis, diabetes
CC mellitus, goiter, gastrointestinal disorders including ulcerative
CC colitis, other conditions associated with abnormal vesicle trafficking
CC including AIDS, allergic reactions, multiple sclerosis and rheumatoid
CC arthritis. A cell comprising the vector of the invention is useful for
CC producing non-human transgenic animals. The polynucleotide of the
CC invention can be used to treat disorders by gene therapy. This
CC polynucleotide sequence represents a probe of a sequence relating to the
CC NOVX proteins of the invention
XX
SQ Sequence 23 BP; 5 A; 10 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 23;
Best Local Similarity 87.5%; Pred. No. 5.8e+03;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1398 CCCTGCAGAACTACAT 1413
||||||| || ||||
Db 5 CCCTGCAGCACCACAT 20

```
RESULT 5339
AAS20313/c
ID   AAS20313 standard; DNA; 25 BP.
XX
AC   AAS20313;
XX
DT   23-APR-2002  (first entry)
XX
DE   Human Cgamma gene Cgamma1-hinge intron PCR primer 25657.
XX
KW   Human; ss; Cgamma; intron Cgamma-hinge; RCA; SP; LEX; RCB; 25657;
KW   antibody; phage display; scFv; T-cell receptor; TCR; PCR primer.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200192291-A2.
XX
PD   06-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-IL000496.
XX
PR   30-MAY-2000; 2000IL-00136459.
XX
PA   (GALI-) GALIM-GALIL IMMUNOLOGY LTD.
XX
PI   Gross G,  Schlesinger Y;
XX
DR   WPI; 2002-114322/15.
XX
PT   Novel DNA construct for creating immune antibody and T-cell receptor
PT   libraries, consists of transcription unit comprising promoter/enhancer
PT   elements and template encoding RNA transcript.
XX
PS   Example 3d; Page 48; 94pp; English.
XX
CC   The invention relates to a DNA construct consisting of a transcription
CC   unit useful for covalent intracellular joining of selected exons from
CC   transcripts of two different genes A and B in a cell in which the genes A
CC   and B are expressible, where the transcription unit comprises promoter/
CC   enhancer elements and a template for RNA synthesis which encodes an RNA
CC   transcript. The RNA transcript has the formula : RCA-SP-RCB. RCA =
CC   nucleotide segment having one or more sequences, each reverse-
CC   complementary to one or more sequences of pre-mRNA of gene A and genes
CC   related to it, where the sequences of pre-mRNA of gene A and genes
CC   related to it are situated downstream to an exon selected to be spliced
CC   to pre-mRNA of gene B or genes related to it; SP = either a spacer
CC   sequence or SP1-LEX-SP2; SP1 and SP2 = spacer sequences; LEX = an exon
CC   encoding a flexible peptide linker or its part preceded by branch point
CC   and acceptor splice sequences and followed by a donor splice sequence;
CC   and RCB = nucleotide segment having one or more sequences, each reverse-
CC   complementary to one or more sequences of pre- mRNA of gene B and genes
CC   related to it, where the sequences of pre-mRNA of gene B and genes
CC   related to it are situated upstream to an exon in pre-mRNA of gene B or
CC   genes related to it selected to be spliced to the selected exon of gene
CC   A. The DNA construct is useful for constructing a mouse or human antibody
CC   library. A transgenic non-human animal harbouring the construct is useful
CC   for generating a variegated population of cDNA and double-stranded DNA
CC   molecules suitable for preparation of gene libraries encoding scFv
CC   molecules of antibodies or human T-cell receptors (TCRs) of interest. The
CC   construct is useful for generating a human TCR library, preferably a
CC   phage-display library, comprising a variegated population of scFv
CC   molecules of human TCRs of interest expressed and displayed on the
CC   surface of a cell or viral particle. The transgenic animal is useful for
CC   generating an antibody library comprising a variegated population of scFv
CC   molecules of antibodies of interest expressed and displayed on the
CC   surface of a cell or viral particle. The construct is useful for
CC   intracellular functional joining of antibody heavy and light chain genes
CC   in antibody-producing cells, and for the production of invaluable
CC   reagents in medicine, diagnostic research and industry. The construct
CC   allows the faithful reconstitution of entire antibody immune repertoires
CC   in-vitro as libraries of scFvs displayed on phage or other display units,
CC   and such a capacity combines the extraordinary ability of the immune
CC   system to produce specific, high affinity antibodies in response to
CC   antigen, with the fast and easy protocols of in-vitro display
CC   technologies. The present sequence amplifies a fragment from the human
CC   Cgamma gene being a region of the Cgama1-hinge intron predicted to
CC   contain the branch point and peptide linker sequence
XX
SQ   Sequence 25 BP; 5 A; 7 C; 13 G; 0 T; 0 U; 0 Other;

  Query Match             0.5%;  Score 12.8;  DB 1;  Length 25;
  Best Local Similarity   70.8%;  Pred. No. 5.7e+03;
  Matches   17;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy        543 CCCACCTCTCCGGGCTGGAGGCGG 566
              ||  |||| | | ||||| ||| |
Db         25 CCTCCCTCCCTGTGCTGGCGGCCG 2


RESULT 5340
ABK90953/c
ID   ABK90953 standard; DNA; 25 BP.
XX
AC   ABK90953;
XX
DT   05-NOV-2002  (first entry)
XX
DE   PCR primer, 25657, used to amplify human C gamma CH1-hinge intron.
XX
KW   Human; PCR; primer; ss; antiHIV; chimeric protein; HIV-1;
KW   human immunodeficiency virus-1; envelope glycoprotein; env; gp120; CD4;
KW   cellular receptor; immunoglobulin; Ig; V1; V2; variable region;
KW   variable region-like membrane distal domain; antibody; heavy chain; VH;
KW   VH3; gene therapy; HIV infection; virus replication; constant gamma;
KW   C gamma; CH1-hinge; CH1.
XX
OS   Homo sapiens.
XX
PN   WO200259258-A2.
XX
PD   01-AUG-2002.
XX
PF   22-JAN-2002; 2002WO-IL000060.
XX
PR   22-JAN-2001; 2001IL-00141023.
XX
PA   (GAVI-) GAVISH-GALILEE BIO APPL LTD.
XX
PI   Gross G,  Meyuhas R;
XX
DR   WPI; 2002-608450/65.
XX
PT   New nucleic acid molecule encoding chimeric proteins with binding
PT   specificity for a site on HIV envelope glycoprotein gp120 and a site on
PT   gp120 protein or on the extracellular portion of human CD4, for
PT   preventing or treating HIV infection.
XX
PS   Example 1; Page 23; 48pp; English.
XX
CC   The invention discloses a nucleic acid molecule encoding a functional
CC   chimeric protein with binding specificity for at least two different
CC   sites. At least one site is on the human immunodeficiency virus-1 (HIV-1)
CC   envelope glycoprotein (env), gp120, and the other site is either on the
CC   gp120 protein or on the extracellular portion of human CD4, the major
CC   cellular receptor for HIV. The chimeric protein essentially comprises a
CC   first binding region of a soluble extracellular portion of human CD4,
CC   consisting of the immunoglobulin (Ig) variable region-like membrane
CC   distal domains (V1 and V2) and a second binding region of a variable
CC   region of an antibody heavy chain (VH), encoded by the VH3 gene, which is
CC   capable of being attached to an adjacent and non-overlapping site on the
CC   gp120 protein, or to a site on the extracellular portion of human CD4,
CC   and is capable of increasing the capacity of the extracellular portion of
CC   human CD4 to interact with gp120 and to block the interaction of HIV with
CC   membranal CD4. These two binding regions are physically connected by a
CC   linker region. The chimeric protein of the invention is useful for gene
```

CC therapy and for preventing and treating an HIV infection and for
CC neutralising and inhibiting virus replication and infectivity in a
CC subject, preferably a mammal. The sequence presented is the PCR primer,
CC 25657, which was used to amplify the human constant (C) gamma heavy chain
CC domain, CH1, gene of the Ig chain used in the construction of the
CC chimeric protein
XX
SQ Sequence 25 BP; 5 A; 7 C; 13 G; 0 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 25;
Best Local Similarity 70.8%; Pred. No. 5.7e+03;
Matches 17; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

Qy 543 CCCACCTCTCCGGGCTGGAGGCGG 566
|| |||| | | ||||| ||| |
Db 25 CCTCCCTCCCTGTGCTGGCGGCCG 2

RESULT 5341
ACI27529/c
ID ACI27529 standard; DNA; 25 BP.
XX
AC ACI27529;
XX
DT 13-OCT-2003 (first entry)
XX
DE Human microarray DNA oligonucleotide SEQ ID NO 27520.
XX
KW EST; ss; probe; expressed sequence tag; microarray; gene expression;
KW genetic variation; biallelic marker; polymorphism; human;
KW cross-species comparison.
XX
OS Homo sapiens.
XX
PN US2003104410-A1.
XX
PD 05-JUN-2003.
XX
PF 15-MAR-2002; 2002US-00098263.
XX
PR 16-MAR-2001; 2001US-0276759P.
XX
PA (AFFY-) AFFYMETRIX INC.
XX
PI Mittmann MP;
XX
DR WPI; 2003-567953/53.
XX
PT New array of nucleic acid probes, useful for in situ hybridization, in
PT Southern, Northern or dot-blot hybridization to identify or detect the
PT sequence or specific mutations of any gene.
XX
PS Claim 1; SEQ ID NO 27520; 9pp; English.
XX
CC The invention discloses a microarray comprising a plurality of nucleic
CC acid probes including one of 2,018,500 fully defined sequences, or its
CC perfect match, perfect mismatch, antisense match or antisense mismatch.
CC Also disclosed is a method of gene expression analysis. The array is used
CC in monitoring gene expression levels by hybridisation to a DNA library,
CC in analysis of genetic variation or in hybridisation of tag-labelled
CC compounds. The nucleic acid probes are specifically designed for analysis
CC of at least one target sequence. The method of analysis comprises
CC hybridising at least one or more nucleic acids to at least two or more
CC nucleic acid probes and detecting the hybridisation. The nucleic acid
CC probes are attached to a solid support. The analysis comprises monitoring
CC gene expression levels, identifying biallelic markers or polymorphisms,
CC or family members of a gene and a cross-species comparison. Each of the
CC nucleic acids further comprises a tag sequence. The array of nucleic acid
CC probes is useful in in situ hybridisation, in Southern, Northern or dot-
CC blot hybridisation to identify or detect the sequence or specific
CC mutations of any gene, in mapping the 5' termini of mRNA molecules by
CC primer extensions or in screening cDNA or genomic libraries or subclones
CC for additional subclones containing segments of DNA that have been
CC isolated and previously sequenced. The sequence presented is one of the
CC nucleic acid probes incorporated in the microarray. Note: The sequence
CC data for this patent can also be obtained in electronic format directly
CC from USPTO at seqdata.uspto.goc/sequence.html
XX
SQ Sequence 25 BP; 13 A; 4 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.5%; Score 12.8; DB 1; Length 25;
Best Local Similarity 70.8%; Pred. No. 5.7e+03;
Matches 17; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

Qy 1882 GTCAAATTGATGTGCCCTAGATCA 1905
||| |||||||| | || || |
Db 25 GTCCTTTTGATGTGTCTTATATTA 2

RESULT 5342
ABA91535
ID ABA91535 standard; DNA; 20 BP.
XX
AC ABA91535;
XX
DT 23-APR-2002 (first entry)
XX
DE DNA oligonucleotide AGT02023 used to test RNase H cleavage.
XX
KW Nucleic acid detection; probe; mismatch; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT misc_feature 11
FT /*tag= a
FT /note= "mismatch to target DNA"
FT misc_feature 13
FT /*tag= b
FT /note= "mismatch to target DNA"
XX
PN WO200206531-A2.
XX
PD 24-JAN-2002.
XX
PF 12-JUL-2001; 2001WO-US022166.
XX
PR 14-JUL-2000; 2000US-00616761.
PR 30-MAR-2001; 2001US-00823647.
XX
PA (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI Dattagupta N;
XX
DR WPI; 2002-171819/22.
XX
PT Probes for detecting target nucleotide sequence in sample, has sequence
PT that forms hairpin structure having a double-stranded segment and single-
PT stranded loop collectively forming region complementary to target
PT sequence.
XX
PS Example 5; Page 50; 72pp; English.
XX
CC The present sequence is that of oligonucleotide AGT02023, which contains
CC a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC one of a set of oligonucleotides (see ABA91532-37) containing
CC mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC H cleavage assay. The results showed that 2 mismatches between the target
CC and the probe ablated RNase H cleavage. The invention provides probes for
CC nucleic acid hybridisation. The probes form a hairpin structure
CC comprising a double-stranded stem and a single-stranded loop, and are
CC capable of both intramolecular and intermolecular hybridisation. The
CC double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC is resistant to RNase H cleavage. When the probe hybridises with a target
CC DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC treatment and can be removed. Arrays and methods for nucleic acid

```
CC   hybridisation using the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db          1 AAAAAAAAATGTGAAAAAA 19


RESULT 5343
AAH80594/c
ID   AAH80594 standard; cDNA; 20 BP.
XX
AC   AAH80594;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 558.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 65; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 2 A; 4 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAA 2797
              ||  || ||||| ||||||
Db         19 AGGGTTAAAAAAGAAAAAA 1


RESULT 5344
ABA91532
ID   ABA91532 standard; DNA; 20 BP.
XX
AC   ABA91532;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02020 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    13
FT                   /*tag=  a
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 5; Page 49; 72pp; English.
XX
CC   The present sequence is that of oligonucleotide AGT02020, which contains
CC   a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC   one of a set of oligonucleotides (see ABA91532-37) containing
CC   mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC   H cleavage assay. The results showed that 2 mismatches between the target
CC   and the probe ablated RNase H cleavage. The effect of one mismatch site
CC   was less than that of two mismatch sites, and showed a polarity effect,
CC   with stronger inhibition shown in assays with AGT02020 than in assays
CC   using an oligonucleotide in which the mismatch was at an adjacent
CC   position. The invention provides probes for nucleic acid hybridisation.
CC   The probes form a hairpin structure comprising a double-stranded stem and
CC   a single-stranded loop, and are capable of both intramolecular and
CC   intermolecular hybridisation. The double-stranded stem may comprise a
CC   methylphosphonate DNA:RNA hybrid that is resistant to RNase H cleavage.
CC   When the probe hybridises with a target DNA, the RNA strand in the
CC   DNA:RNA duplex becomes sensitive to RNase H treatment and can be removed.
CC   Arrays and methods for nucleic acid hybridisation using the probes are
CC   provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db          1 AAAAAAAAATTTGAAAAAA 19


RESULT 5345
ADD81485/c
ID   ADD81485 standard; DNA; 20 BP.
```

XX
AC ADD81485;
XX
DT 29-JAN-2004 (first entry)
XX
DE HIV PRT antisense derived probe #414.
XX
KW ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW large array; minimum oligonucleotide synthesis; probe.
XX
OS Human immunodeficiency virus.
XX
PN US2003054346-A1.
XX
PD 20-MAR-2003.
XX
PF 15-FEB-2001; 2001US-00784674.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (SHAN/) SHANNON K W.
PA (WOLB/) WOLBER P K.
PA (DELE/) DELENSTARR G C.
PA (WEBB/) WEBB P G.
PA (KINC/) KINCAID R H.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2003-743746/70.
XX
PT Predicting potential of oligonucleotides to hybridize to target
PT nucleotide sequence comprises determining and evaluating for each
PT oligonucleotide a parameter predictive of the oligonucleotides ability to
PT hybridize with target.
XX
PS Example 2; SEQ ID NO 558; 423pp; English.
XX
CC The invention relates to a method of predicting the potential of
CC oligonucleotides to hybridise to target nucleotide sequences. The method
CC is useful for predicting the potential of an oligonucleotide to hybridise
CC to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC contains chemically modified nucleotides. The method is also useful for
CC predicting the potential of the oligonucleotides to hybridise to a
CC complementary target nucleotide sequence. The method is useful to predict
CC efficient hybridisation oligonucleotides for each of multiple target
CC sequences therefore very large arrays may be constructed and tested with
CC minimum synthesis of oligonucleotides. The present sequence represents a
CC HIV PRT antisense derived probe.
XX
SQ Sequence 20 BP; 2 A; 4 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 20;
Best Local Similarity 78.9%; Pred. No. 5.7e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2779 AGAATTGAAAAAAAAAAAA 2797
              ||  ||  ||||| ||||||
Db         19 AGGGTTAAAAAAGAAAAAA 1
```

RESULT 5346
AAL53965
ID AAL53965 standard; DNA; 20 BP.
XX
AC AAL53965;
XX
DT 18-FEB-2003 (first entry)
XX
DE DNA mutation detection related oligo, SEQ ID No 15.
XX
KW Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW single nucleotide polymorphism; ss.
XX
OS Unidentified.
XX
PN US2002142308-A1.
XX
PD 03-OCT-2002.
XX
PF 30-MAR-2001; 2001US-00823634.
XX
PR 30-MAR-2001; 2001US-00823634.
XX
PA (DATT/) DATTAGUPTA N.
PA (TSEN/) TSENG T.
XX
PI Dattagupta N, Tseng T;
XX
DR WPI; 2003-102506/09.
XX
PT Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT having mutation with test DNA strand to form duplex, contacting the
PT duplex with RNase H and determining the cleavage of test strand by RNase
PT H.
XX
PS Example 5; Fig 4; 26pp; English.
XX
CC The invention relates to a novel method for detecting a point mutation in
CC a DNA strand. The novel method comprises hybridising a target DNA strand
CC containing or suspected of containing a point mutation with a test
CC nucleic acid strand complementary to the DNA strand to form a target DNA
CC strand/test nucleic acid strand duplex, contacting the duplex with an
CC RNase H, and determining whether the ribonucleotide residues within the
CC nucleotide sequence are cleaved by RNase H. The method is useful for
CC detecting a point mutation in a DNA strand, where the point mutation to
CC be detected is a single nucleotide polymorphism, preferably a
CC polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC or human genome. The method is useful to detect any nucleic acids from
CC any species of organisms such as Acintobacter, Bacillus, Candida,
CC Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC This polynucleotide sequence represents an oligo relating to the mutation
CC detecting method of the invention
XX
SQ Sequence 20 BP; 16 A; 0 C; 2 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 20;
Best Local Similarity 78.9%; Pred. No. 5.7e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||     ||||||||
Db          1 AAAAAAAGGTTAAAAAAAA 19
```

RESULT 5347
AAH80593/c
ID AAH80593 standard; cDNA; 20 BP.
XX
AC AAH80593;
XX
DT 11-SEP-2003 (revised)
DT 19-SEP-2001 (first entry)
XX
DE Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 557.
XX
KW Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW disease diagnosis; ss.
XX
OS Human immunodeficiency virus 1.
XX
PN US6251588-B1.
XX
PD 26-JUN-2001.
XX
PF 10-FEB-1998; 98US-00021701.
XX

```
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 65; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAA 2797
              ||  || ||||| ||||||
Db         20 AGGGTTAAAAAAGAAAAAA 2

RESULT 5348
AAL53963
ID   AAL53963 standard; DNA; 20 BP.
XX
AC   AAL53963;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 13.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||     ||||||||
Db          1 AAAAAAAGTTTAAAAAAAA 19

RESULT 5349
ADD81484/c
ID   ADD81484 standard; DNA; 20 BP.
XX
AC   ADD81484;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #413.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 557; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
```

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CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 3 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAA 2797
              ||  || ||||| ||||||
Db         20 AGGGTTAAAAAAGAAAAAA 2

RESULT 5350
AAV69993/c
ID   AAV69993 standard; DNA; 20 BP.
XX
AC   AAV69993;
XX
DT   04-FEB-1999  (first entry)
XX
DE   Mouse c-jun protein antisense oligonucleotide #38.
XX
KW   Mouse; c-fos; c-jun; activating protein 1; AP-1; diagnosis; metastasis;
KW   antisense oligonucleotide; phosphorothioate; regulation;
KW   malignant tumour; cell cycle expression; hyperproliferative disease; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /note= "phosphorothioate linkages"
XX
PN   WO9846272-A1.
XX
PD   22-OCT-1998.
XX
PF   14-APR-1998;   98WO-US007386.
XX
PR   14-APR-1997;   97US-00837201.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Dean NM,  Mckay R,  Miraglia L,  Baker B;
XX
DR   WPI; 1998-609906/51.
XX
PT   Antisense oligonucleotides regulating Activating Protein 1 subunits -
PT   hybridise with c-fos and c-jun mRNA, used for regulating metastasis, cell
PT   cycle expression and hyperproliferative disease.
XX
PS   Example 7; Page 52; 120pp; English.
XX
CC   AAV69993 to AAV70008 represent antisense oligonucleotides which are
CC   specifically hybridisable with a region of a nucleic acid encoding mouse
CC   c-Jun protein. The antisense compound regulates the expression of the c-
CC   Jun protein. The present invention also describes antisense
CC   oligonucleotides which regulate the c-Fos protein. The antisense
CC   oligonucleotides are used for the diagnosis and treatment of diseases or
CC   disorders associated with Activating Protein 1 expression, of which c-Fos
CC   and c-Jun are subunits. The antisense oligonucleotides are used in
CC   compositions as c-Fos and/or c-Jun together with a carrier and a
CC   chemotherapeutic agent. They are used to regulate the expression of c-Fos
CC   or c-Jun in cells or tissues, preferably by inhibiting metastasis. They
CC   also regulate cell cycle expression and can be used to treat an animal
CC   with, or being prone to, a hyperproliferative disease
XX
SQ   Sequence 20 BP; 3 A; 11 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1000 GCGGGAGAAGTTGGACAAG 1018
              ||||  |||||||| | ||
Db         19 GCGGCTGAAGTTGGGCGAG 1

RESULT 5351
AAC65597
ID   AAC65597 standard; DNA; 20 BP.
XX
AC   AAC65597;
XX
DT   14-FEB-2001  (first entry)
XX
DE   Human uteroglobin SNP PCR primer hUG-3100GR.
XX
KW   Mouse; uteroglobin; immunoglobulin A mediated disease; IgA nephropathy;
KW   autoimmune disorder; pulmonary inflammation; Wegener's granulomatosus;
KW   Goodpasture's disease; diabetic glomerulosclerosis; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200062795-A2.
XX
PD   26-OCT-2000.
XX
PF   13-APR-2000; 2000WO-US009979.
XX
PR   21-APR-1999;   99US-0130434P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Mukherjee AB,  Zheng F,  Zhang Z;
XX
DR   WPI; 2000-687100/67.
XX
PT   Use of a composition comprising uteroglobin (or a fragment, derivative,
PT   mimetic or variant), for inhibiting or treating an immunoglobulin-A
PT   mediated autoimmune disorders, e.g. diabetic glomerulosclerosis and
PT   pulmonary inflammation.
XX
PS   Example 12; Page 43; 60pp; English.
XX
CC   The present invention describes the use of uteroglobin in the diagnosis
CC   and prevention of IgA mediated diseases, such as IgA nephropathy,
CC   Wegener's granulomatosus, Goodpasture's disease and diabetic
CC   glomerulosclerosis. This is possible as uteroglobin binds to fibronectin,
CC   preventing the complexing of fibronectin with IgA and the deposition of
CC   immune complexes in the kidney
XX
SQ   Sequence 20 BP; 15 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||| ||| ||| ||| |||
Db          1 AAATAAATAAACAAACAAA 19

RESULT 5352
ABZ85536
ID   ABZ85536 standard; DNA; 20 BP.
XX
AC   ABZ85536;
XX
```

DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Claim 15; SEQ ID NO 778; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 15 A; 0 C; 4 G; 1 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 20;
Best Local Similarity 78.9%; Pred. No. 5.7e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAAA 2804
|| |||| |||||| |||
Db 1 AAGAAAAGAAAAAAGGAAA 19

RESULT 5353
ABQ92966
ID ABQ92966 standard; DNA; 20 BP.
XX
AC ABQ92966;
XX
DT 29-AUG-2003 (revised)
DT 21-OCT-2002 (first entry)
XX
DE T. tauschii/wheat D genome microsatellite cfd49 left PCR primer.
XX
KW Microsatellite marker; wheat; D genome; mapping; genotyping;
KW polymorphism; phenotypic trait; QTL; quantitative trait locus;
KW disease-associated gene; development factor; quality factor;
KW resistance factor; wheat product; identification; detection;
KW genetically modified wheat; PCR; primer; ss.
XX
OS Aegilops tauschii.
OS Triticum aestivum.
XX
PN EP1217079-A1.
XX
PD 26-JUN-2002.
XX
PF 22-DEC-2000; 2000EP-00403659.
XX
PR 22-DEC-2000; 2000EP-00403659.
XX
PA (INRG) INRA INST NAT RECH AGRONOMIQUE.
XX
PI Bernard M, Sourdille P, Guyomarch H;
XX
DR WPI; 2002-550410/59.
XX
PT Map of wheat D genome comprising the genome location of a microsatellite
PT marker, useful for e.g. identifying genes responsible for a desired
PT phenotypic trait, especially quantitative trait loci in wheat, and
PT diseases.
XX
PS Claim 4; Page 5; 105pp; English.
XX
CC The invention relates to a map of the bread wheat D genome comprising the
CC genome location of a microsatellite marker selected from a group of 185
CC such markers (ABQ92733-ABQ92917). The invention also encompasses the use
CC of left (ABQ92918-ABQ93102) and right (ABQ93103-ABQ93287) primers to
CC amplify and detect the microsatellite markers, and to identify genes
CC responsible for a phenotypic trait of interest in wheat. Wheat is an
CC allohexaploid species consisting of 3 diploid genomes designated A, B and
CC D, resulting from two successive intercrossings involving at least three
CC different species. The D genome is thought to have been introduced in the
CC most recent intercrossing, between the amphiploid AABB and Triticum
CC tauschii (DD), probably involving only a limited number of genotypes of
CC both species. Due to its polyploid genome, the large size of its genome,
CC and its low level of polymorphism, the genetic mapping of wheat has to
CC date been difficult. Microsatellites are tandemly repeated sequences
CC between one and six nucleotides long, and are very polymorphic in length,
CC mainly due to polymerase slippage during replication. This high degree of
CC polymorphism makes them especially suitable for the genetic mapping of
CC species which show little intraspecies polymorphism, such as wheat. In
CC addition, microsatellites are codominant, and exhibit Mendelian
CC inheritance. The 185 microsatellite markers of the invention are
CC developed from the ancestral diploid donor species Triticum tauschii and
CC map to the wheat D genome, which is less polymorphic than the A or B
CC genomes. These microsatellite markers thus help to overcome some of the
CC problems associated with the genetic mapping of wheat. The wheat D genome
CC map and the microsatellite markers and associated primers of the
CC invention are useful for identifying genes responsible for a phenotypic
CC trait of interest, most notably QTLs (quantitative trait loci). In
CC particular they may be used for analysing genes and alleles implicated in
CC disease and for identifying development factors, quality factors and
CC factors conferring resistance to pathogens and xenobiotics. The
CC microsatellite markers, and associated primers may be also be used in
CC mapping and genotyping diploid and polyploid species of Triticum,
CC particularly Aegilops, Triticum monococcum, Triticum durum, Triticum
CC aestivum, or related species; for identifying cultivars and hybrids of
CC Triticum and related species; to assess whether or not a product
CC comprises wheat or a related species; and to assess whether or not a
CC product comprises genetically modified wheat. The present sequence
CC represents a specifically claimed Triticum tauschii/wheat genome D

```
CC   microsatellite marker left PCR primer of the invention. (Updated on 29-
CC   AUG-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 3 C; 7 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        829 TGAGGTCTTCTGCTCAGTC 847
              |||| ||||||| | || |
Db          1 TGAGTTCTTCTGGTGAGGC 19


RESULT 5354
AAV48864
ID   AAV48864 standard; DNA; 20 BP.
XX
AC   AAV48864;
XX
DT   15-OCT-1998  (first entry)
XX
DE   ErbB-2 gene antisense oligonucleotide ErbB-2-N-73.
XX
KW   ErbB-2; antisense oligonucleotide; modulate; gene expression; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   EP856579-A1.
XX
PD   05-AUG-1998.
XX
PF   31-JAN-1997;   97EP-00101531.
XX
PR   31-JAN-1997;   97EP-00101531.
XX
PA   (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
XX
PI   Schlingensiepen K,  Brysch W;
XX
DR   WPI; 1998-400910/35.
XX
PT   Preparation of antisense oligo:nucleotide(s) which lack long runs of
PT   consecutive guanosine or inosine - and have specific ratio of residues
PT   able to form two or three hydrogen bonds, have greater activity and
PT   reduced toxicity, used therapeutically or to modulate growth of cells in
PT   culture.
XX
PS   Example 4; Fig 6d; 286pp; English.
XX
CC   AAV48709-886 represent antisense oligonucleotides directed against the
CC   ErbB-2 gene. Of these, only oligonucleotides AAV48709-91 resulted in
CC   significant redcution in ErbB-2 protein expression, while
CC   oligonucleotides AAV48792-886 had little effect. The oligonucleotides
CC   exemplify the invention. The specification describes oligonucleotides
CC   that contain 8-30 nucleotides, which contain at most 8 nucleotides that
CC   can each form three hydrogen bonds to cytosine; do not contain four
CC   consecutive nucleotides able to form three H-bonds each to four
CC   consecutive cytosines; do not contain two sequences of three consecutive
CC   nucleotides each able to form three H-bonds to three consecutive
CC   cytosines, and the ratio between residues able to form two H-bonds each
CC   (2R) or three such bonds (3R) is given by 2R/3R = 0.33-0.72. The
CC   oligonucleotides are used to modulate expression of genes, particularly
CC   the genes for p53, ErB-2, junB, junD, TGF-beta 1 or beta 2 to control
CC   proliferation of primary cell cultures (e.g. bone marrow stem, liver or
CC   kidney cells, osteoclasts, osteoblasts and/or keratinocytes). The
CC   oligonucleotides can also be used to analyse function of proteins (by
CC   altering their expression or activity) and therapeutically, e.g. in cases
CC   of cancer or (targeting TGF) for stimulating the immune system
XX
SQ   Sequence 20 BP; 16 A; 2 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              || |||| |||||||  ||
Db          1 AACAAAACAAAAAAAGTAA 19


RESULT 5355
AAA40976/c
ID   AAA40976 standard; DNA; 20 BP.
XX
AC   AAA40976;
XX
DT   16-AUG-2000  (first entry)
XX
DE   Human TNFalpha antisense oligonucleotide ISIS# 100595.
XX
KW   Antisense oligonucleotide; phosphorothioate; TNFalpha; cytokine; inhibit;
KW   tumour necrosis factor alpha; inflammatory bowel disease; diabetes;
KW   rheumatoid arthritis; infectious disease; multiple sclerosis; hepatitis;
KW   pancreatitis; atopic dermatitis; allograft rejection; autoimmune disease;
KW   inflammatory disease; ss.
XX
OS   Synthetic.
XX
PN   WO200020645-A1.
XX
PD   13-APR-2000.
XX
PF   05-OCT-1999;   99WO-US023205.
XX
PR   05-OCT-1998;   98US-00166186.
PR   18-MAY-1999;   99US-00313932.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baker BF,  Bennett CF,  Butler MM,  Shanahan WJ;
XX
DR   WPI; 2000-303808/26.
XX
PT   Oligonucleotide for treating diseases associated with human tumor
PT   necrosis factor-alpha (TNF-alpha) such as, diabetes and rheumatoid
PT   arthritis, comprises nucleotide sequence complementary to intron of
PT   nucleic acid encoding TNF-alpha.
XX
PS   Example 20; Page 95; 283pp; English.
XX
CC   This sequence represents an antisense oligonucleotide sequence which
CC   targets a region of the human tumour necrosis factor alpha (TNFalpha)
CC   nucleotide sequence. TNFalpha is an important cytokine that plays a role
CC   in host defence. It is produced mainly in macrophages and monocytes in
CC   response to infection, invasion, injury or inflammation. Overexpression
CC   of TNFalpha can result in disease states, particularly in infectious,
CC   inflammatory and autoimmune diseases. The invention relates to antisense
CC   oligonucleotides, such as that represented by the present sequence which
CC   are capable of modulating the TNFalpha gene expression. The
CC   oligonucleotides optionally have a phosphorothioate backbone, and may
CC   also optionally contain at least one 2'-O-methoxyethyl modification. The
CC   oligonucleotides are useful for modulating the expression of human
CC   TNFalpha in cells and tissues, reducing a human cell inflammatory
CC   response, reducing the blood glucose level in a human and treating a
CC   human having a disease or condition associated with TNFalpha. Examples of
CC   diseases associated with TNFalpha include diabetes, inflammatory bowel
CC   disease, multiple sclerosis, pancreatitis, rheumatoid arthritis,
CC   infectious disease, hepatitis, atopic dermatitis or allograft rejection.
CC   The antisense oligonucleotides are also useful for modulating the
CC   function of a selected nucleic acid sequence in adipose tissue
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
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```
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1449 TGAACCCTGGAGACCAGAG 1467
              || |  |||||||||||  |
Db         19 TGGAATCTGGAGACCAGGG 1


RESULT 5356
ABL57553
ID   ABL57553 standard; DNA; 20 BP.
XX
AC   ABL57553;
XX
DT   26-JUL-2002  (first entry)
XX
DE   Synthetic deoxyribooligonucleotide poly t.
XX
KW   Concentration; quantification; mutation detection; polymorphic;
KW   polymerase chain reaction; PCR; ss.
XX
OS   Synthetic.
XX
PN   EP1046717-A2.
XX
PD   25-OCT-2000.
XX
PF   20-APR-2000; 2000EP-00108643.
XX
PR   20-APR-1999;   99JP-00111601.
XX
PA   (NIBI-) JAPAN BIOINDUSTRY ASSOC.
PA   (AGEN ) AGENCY OF IND SCI & TECHNOLOGY.
PA   (KANK-) KANKYO ENG CO LTD.
XX
PI   Kurane R,  Kanagawa T,  Kamagata Y,  Kurata S,  Yamada K,  Yokomaku T;
PI   Koyama O,  Furusho K;
XX
DR   WPI; 2000-657765/64.
XX
PT   Determining the concentration of a target nucleic acid, useful e.g. for
PT   detecting genetic mutations, comprises using a fluorescently labeled
PT   probe in which emission is reduced by binding to the target nucleic acid.
XX
PS   Example 6; Page 23; 55pp; English.
XX
CC   The invention relates to the determination of the concentration of a
CC   nucleic acid target, using a fluorescently labeled probe which produces
CC   reduced fluorescence emission when hybridised to the target nucleic acid.
CC   The method comprises measuring the reduction in emission caused by
CC   hybridisation. The new method is particularly used to quantify target
CC   nucleic acids by a real-time polymerase chain reaction, e.g. for
CC   quantifying microbial cells in co-cultures or symbiotic systems, for
CC   detecting gene mutations or polymorphisms, and for analysing melting
CC   curves of target nucleic acids to determine a Tm value. Methods of the
CC   invention allow target nucleic acids to be quantified quickly, easily and
CC   accurately. Particularly there is no need to remove unbound probe, and no
CC   materials are introduced that inhibit amplification by Taq polymerase (so
CC   conventional PCR conditions can be used). The specificity of PCR is kept
CC   high (amplification of primer dimers is delayed), and the limit of
CC   quantitation is reduced. Complex probes are not needed, and amplification
CC   can be monitored in real time. The working graph for data analysis
CC   (automatically generated by a computer) has a higher correlation
CC   coefficient than conventional graphs so more accurate quantitation is
CC   possible. The current sequence represents a synthetic
CC   deoxyribooligonucleotide that was used for investigating the effects of
CC   the number of G(s) in each target nucleic acid, and the number of G(S) in
CC   its corresponding invention nucleic acid probe
XX
SQ   Sequence 20 BP; 4 A; 1 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTT 2184
              | | | | ||||||||||||
Db          1 TATATATATTTTTTTTTTT 19


RESULT 5357
AAF24291/c
ID   AAF24291 standard; DNA; 20 BP.
XX
AC   AAF24291;
XX
DT   03-APR-2001  (first entry)
XX
DE   Complementary nucleic acid detection method related sequence #6.
XX
KW   Complementary nucleic acid; gene analysis; polymorphism; variation;
KW   DNA chip; primer; ss.
XX
OS   Unidentified.
XX
PN   EP1065278-A2.
XX
PD   03-JAN-2001.
XX
PF   07-JUN-2000; 2000EP-00112235.
XX
PR   07-JUN-1999;   99JP-00159339.
XX
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
XX
PI   Makino Y,  Abe Y,  Ogawa M,  Takagi M,  Takenaka S,  Yamashita K;
XX
DR   WPI; 2001-140003/15.
XX
PT   Determining complementarity of nucleotide fragment for gene analysis, by
PT   comparing flow of electric current from or to electroconductive substrate
PT   through DNA fragment, with reference obtained from its complement.
XX
PS   Example 1; Page 13; 28pp; English.
XX
CC   The present invention provides a method for analysing a nucleic acid
CC   strand to determine the degree of complementarity between two sequences.
CC   This involves the measurement of an electric current along the annealed
CC   strands compared to a standard. This is useful in the analysis of genetic
CC   polymorphisms and variation between genes
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||||||||    |||||||
Db         20 AAAAAAAATTTTAAAAAAA 2


RESULT 5358
ABA91531
ID   ABA91531 standard; DNA; 20 BP.
XX
AC   ABA91531;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02009 used to test RNase H cleavage.
XX
KW   DNA-RNA hybrid; RNase H; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
```

```
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 4; Page 49; 72pp; English.
XX
CC   The present sequence is that of DNA oligonucleotide AGT02009, which was
CC   used as a target oligonucleotide in an assay to determine the minimum
CC   number of ribonucleotides in DNA:RNA hybrids required for RNase H
CC   cleavage (see ABA91527-30), and in an assay which showed that mismatches
CC   between a target DNA and a hairpin DNA probe inhibit RNase H activity
CC   (see ABA91532-37). The invention provides probes for nucleic acid
CC   hybridisation. The probes form a hairpin structure comprising a double-
CC   stranded stem and a single-stranded loop, and are capable of both
CC   intramolecular and intermolecular hybridisation. The double-stranded stem
CC   may comprise a methylphosphonate DNA:RNA hybrid that is resistant to
CC   RNase H cleavage. When the probe hybridises with a target DNA, the RNA
CC   strand in the DNA:RNA duplex becomes sensitive to RNase H treatment and
CC   can be removed. Arrays and methods for nucleic acid hybridisation using
CC   the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indents    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db          1 AAAAAAAAATTTTAAAAAA 19


RESULT 5359
ABA91533
ID   ABA91533 standard; DNA; 20 BP.
XX
AC   ABA91533;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02021 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    12
FT                   /*tag=  a
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 5; Page 50; 72pp; English.
XX
CC   The present sequence is that of oligonucleotide AGT02021, which contains
CC   a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC   one of a set of oligonucleotides (see ABA91532-37) containing
CC   mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC   H cleavage assay. The results showed that 2 mismatches between the target
CC   and the probe ablated RNase H cleavage. The effect of one mismatch site
CC   was less than that of two mismatch sites, and showed a polarity effect,
CC   with weaker inhibition shown in assays with AGT02021 than in assays using
CC   an oligonucleotide in which the mismatch was at an adjacent position.
CC   Oligonucleotides in which the mismatch was C or A rather than G showed
CC   similar inhibition of RNase H cleavage. The invention provides probes for
CC   nucleic acid hybridisation. The probes form a hairpin structure
CC   comprising a double-stranded stem and a single-stranded loop, and are
CC   capable of both intramolecular and intermolecular hybridisation. The
CC   double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC   is resistant to RNase H cleavage. When the probe hybridises with a target
CC   DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC   treatment and can be removed. Arrays and methods for nucleic acid
CC   hybridisation using the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indents    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db          1 AAAAAAAAATTGTAAAAAA 19


RESULT 5360
ABA91527/c
ID   ABA91527 standard; DNA; 20 BP.
XX
AC   ABA91527;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA-RNA-DNA oligonucleotide AGT02008 used to test RNase H cleavage.
XX
KW   DNA-RNA hybrid; RNase H; nucleic acid detection; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_RNA        8. .11
FT                   /*tag=  a
FT                   /label= RNA
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
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```
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 4; Page 49; 72pp; English.
XX
CC   The present sequence is that of DNA-RNA-DNA hybrid oligonucleotide
CC   AGT02008. This is one of a set of oligonucleotides (see ABA91527-30) used
CC   to assess the minimum number of ribonucleotides in DNA-RNA chimeric
CC   oligonucleotides required for RNase H cleavage. Each oligonucleotide of
CC   the set had a different number of ribonucleotides, 4 in the present case.
CC   The oligonucleotides were mixed with target DNA oligonucleotide AGT02009
CC   (see ABA91531) and incubated with RNase H (5 U/ml) at 37 degrees C for 30
CC   minutes. The results showed that 4 ribonucleotides were the minimum
CC   number for RNA cleavage. The invention provides probes for nucleic acid
CC   hybridisation. The probes form a hairpin structure comprising a double-
CC   stranded stem and a single-stranded loop, and are capable of both
CC   intramolecular and intermolecular hybridisation. The double-stranded stem
CC   may comprise a methylphosphonate DNA:RNA hybrid that is resistant to
CC   RNase H cleavage. When the probe hybridises with a target DNA, the RNA
CC   strand in the DNA:RNA duplex becomes sensitive to RNase H treatment and
CC   can be removed. Arrays and methods for nucleic acid hybridisation using
CC   the probes are provided
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db         20 AAAAAAAAATTTTAAAAAA 2

RESULT 5361
ABA91536
ID   ABA91536 standard; DNA; 20 BP.
XX
AC   ABA91536;
XX
DT   23-APR-2002  (first entry)
XX
DE   DNA oligonucleotide AGT02024 used to test RNase H cleavage.
XX
KW   Nucleic acid detection; probe; mismatch; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    12
FT                   /*tag=  a
FT                   /note= "mismatch to target DNA"
XX
PN   WO200206531-A2.
XX
PD   24-JAN-2002.
XX
PF   12-JUL-2001; 2001WO-US022166.
XX
PR   14-JUL-2000; 2000US-00616761.
PR   30-MAR-2001; 2001US-00823647.
XX
PA   (GENE-) APPLIED GENE TECHNOLOGIES INC.
XX
PI   Dattagupta N;
XX
DR   WPI; 2002-171819/22.
XX
PT   Probes for detecting target nucleotide sequence in sample, has sequence
PT   that forms hairpin structure having a double-stranded segment and single-
PT   stranded loop collectively forming region complementary to target
PT   sequence.
XX
PS   Example 5; Page 50; 72pp; English.
XX
CC   The present sequence is that of oligonucleotide AGT02024, which contains
CC   a single mismatch with a target DNA oligonucleotide (see ABA91531). It is
CC   one of a set of oligonucleotides (see ABA91532-37) containing
CC   mismatch(es) to the target DNA that were tested in a hybridisation/RNase
CC   H cleavage assay. The results showed that 2 mismatches between the target
CC   and the probe ablated RNase H cleavage. The effect of one mismatch site
CC   was less than that of two mismatch sites, and showed a polarity effect,
CC   with weaker inhibition shown in assays with AGT02021 than in assays using
CC   an oligonucleotide in which the mismatch was at an adjacent position.
CC   Oligonucleotides in which the mismatch was G or A rather than C showed
CC   similar inhibition of RNase H cleavage. The invention provides probes for
CC   nucleic acid hybridisation. The probes form a hairpin structure
CC   comprising a double-stranded stem and a single-stranded loop, and are
CC   capable of both intramolecular and intermolecular hybridisation. The
CC   double-stranded stem may comprise a methylphosphonate DNA:RNA hybrid that
CC   is resistant to RNase H cleavage. When the probe hybridises with a target
CC   DNA, the RNA strand in the DNA:RNA duplex becomes sensitive to RNase H
CC   treatment and can be removed. Arrays and methods for nucleic acid
CC   hybridisation using the probes are provided
XX
SQ   Sequence 20 BP; 16 A; 1 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db          1 AAAAAAAAATTCTAAAAAA 19

RESULT 5362
ABK85429/c
ID   ABK85429 standard; DNA; 20 BP.
XX
AC   ABK85429;
XX
DT   29-AUG-2003  (revised)
DT   14-AUG-2002  (first entry)
XX
DE   Oligonucleotide #7 binding to specific site of HIV-1 RNA.
XX
KW   Human immunodeficiency virus type 1; HIV-1 detection method; primer;
KW   probe; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   EP1203826-A2.
XX
PD   08-MAY-2002.
XX
PF   30-OCT-2001; 2001EP-00125378.
XX
PR   30-OCT-2000; 2000JP-00334937.
XX
PA   (TOYJ ) TOSOH CORP.
XX
PI   Ishizuka T,  Ishiguro T,  Saitoh J;
XX
DR   WPI; 2002-473032/51.
XX
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PT   An oligonucleotide useful for detection of an RNA derived from HIV-1 in
PT   clinical tests and diagnosis.
XX
PS   Claim 6; Page 14; 34pp; English.
XX
CC   The present invention relates to oligonucleotides binding to specific
CC   sites of human immunodeficiency virus type 1 (HIV-1) RNA. The
CC   oligonucleotides are useful for detecting HIV-1 in clinical tests and
CC   diagnosis. The oligonucleotides provide simple, speedy and sensitive
CC   detection of HIV-1 RNA which can bind to an intramolecularly free region
CC   of the genomic RNA of HIV-1 at relatively low and constant temperatures.
CC   The detection method comprises synthesising a cDNA by the action of an
CC   RNA-dependent DNA polymerase by using a specific sequence in an RNA
CC   derived from HIV-1 anticipated in a sample as a template, a first primer
CC   containing a sequence complementary to the specific sequence and a second
CC   primer containing a sequence homologous to the specific sequence (either
CC   of which additionally has a promoter sequence for the RNA polymerase at
CC   the 5'end). ABK85423-ABK85440 represent oligonucleotides binding to
CC   specific sites of HIV-1 RNA. They can be used either as first primers or
CC   probes. (Updated on 29-AUG-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 1 A; 2 C; 1 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||| ||||  || |||||
Db         20 AAAACAAAAGTAAGAAAAA 2

RESULT 5363
ABA97638
ID   ABA97638 standard; DNA; 20 BP.
XX
AC   ABA97638;
XX
DT   11-APR-2002  (first entry)
XX
DE   Poly t nucleotide sequence.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 4 A; 1 C; 0 G; 15 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTT 2184
              | | | | ||||||||||||
Db          1 TATATATATTTTTTTTTTT 19

RESULT 5364
ABL94461
ID   ABL94461 standard; DNA; 20 BP.
XX
AC   ABL94461;
XX
DT   29-JUL-2002  (first entry)
XX
DE   Mouse C/EBP beta phosphorothioate antisense oligonucleotide, SEQ ID:228.
XX
KW   Mouse; murine; C/EBP beta; CCAAT/enhancer-binding protein beta; C/EPB2;
KW   LAP; TCF5; CRP2; NFIL6; IL6DBP; NF-M; AGP/EBP; Apc/EBP;
KW   transcription factor; tissue development; cellular function;
KW   proliferation; differentiation; hormone responsiveness;
KW   oxidative stress response; IL-6 signalling mediator; interleukin-6;
KW   carbohydrate metabolism; immunity; Th1 response; female fertility;
KW   gluconeogenesis; ovarian; cancer; tumour formation; type II; diabetes;
KW   infection; inflammation; expression inhibition; phosphorothioate;
KW   antisense oligonucleotide; ss.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6271030-B1.
XX
PD   07-AUG-2001.
XX
PF   14-JUN-2000; 2000US-00593711.
XX
PR   14-JUN-2000; 2000US-00593711.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-214451/27.
XX
PT   Novel antisense compound targeted to nucleic acids encoding human or
PT   mouse CCAAT/enhancer binding protein (C/EBP) beta, useful in vitro for
PT   inhibiting expression of human or mouse C/EBP beta in cells/tissues.
XX
PS   Example 17; Col 53-54; 69pp; English.
XX
CC   Sequences ABL94252-ABL94476 represent antisense oligonucleotides targeted
CC   to the human or mouse CCAAT/enhancer-binding protein alpha (C/EBP alpha)
CC   gene, which inhibit its expression. The antisense oligonucleotides were
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CC   designed to target different regions of the human and/or mouse C/EBP
CC   alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels
CC   by quantitative real-time PCR. The C/EBP family of proteins are a family
CC   of transcription factors which regulate the expression of a wide range of
CC   genes that control normal tissue development, cellular function, cellular
CC   proliferation and functional differentiation. C/EBP beta (also known as
CC   C/EPB2, LAP, TCF5, CRP2, NFIL6, IL6DBP, NF-M, AGP/EBP and Apc/EBP)
CC   primarily regulates hormone responsiveness and oxidative stress responses
CC   and is a mediator of IL-6 (interleukin-6) signalling. C/EBP beta is
CC   thought to be involved in carbohydrate metabolism, immunity, the Th1
CC   response, female fertility and gluconeogenic pathways. C/EBP beta is
CC   expressed in the liver, lung, spleen, kidney, brain, and testis, with the
CC   highest expression found in the lung. It is also expressed at a higher
CC   level in malignant ovarian tissue compared with normal ovarian tissue,
CC   and its expression in pancreas is upregulated in response to chronically
CC   elevated levels of glucose, indicating that it is involved in the
CC   impairment of insulin secretion in type II diabetes. The oligonucleotides
CC   of the invention are useful for diagnosis, prevention and treatment of
CC   conditions associated with C/EBP beta expression, such as cancer
CC   (particularly ovarian cancer), tumour formation, diabetes (particularly
CC   type II diabetes), infection, or inflammation
XX
SQ   Sequence 20 BP; 16 A; 4 C; 0 G; 0 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              | ||||| |||| ||||| 
Db          2 ACAAAAACAAAACCAAAAA 20


RESULT 5365
ABZ89486
ID   ABZ89486 standard; DNA; 20 BP.
XX
AC   ABZ89486;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4728; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 15 A; 4 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              | || ||  ||||||||||| 
Db          2 ACAACAACCAAAAAAAAAA 20


RESULT 5366
ABZ89718/c
ID   ABZ89718 standard; DNA; 20 BP.
XX
AC   ABZ89718;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 4960; 872pp; English.
```

```
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 2 A; 0 C; 2 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||||||||||||    |||
Db         20 AAAAAAAAAAAATTCCAAA 2


RESULT 5367
AAL53961/c
ID   AAL53961 standard; DNA; 20 BP.
XX
AC   AAL53961;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related ribonucleotide, SEQ ID No 11.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 4; Fig 3; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents a ribonucleotide relating to the
CC   mutation detecting method of the invention
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||||||||||    ||||||
Db         20 AAAAAAAAATTTTAAAAAA 2


RESULT 5368
AAL53959/c
ID   AAL53959 standard; DNA; 20 BP.
XX
AC   AAL53959;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related ribonucleotide, SEQ ID No 9.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 4; Fig 3; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
```

```
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents a ribonucleotide relating to the
CC   mutation detecting method of the invention
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db         20 AAAAAAAAATTTTAAAAAA 2


RESULT 5369
AAL53967
ID   AAL53967 standard; DNA; 20 BP.
XX
AC   AAL53967;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related ribonucleotide, SEQ ID No 17.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents a ribonucleotide relating to the
CC   mutation detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 1 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||    ||||||||
Db          1 AAAAAAATCTTAAAAAAAA 19


RESULT 5370
AAL53958/c
ID   AAL53958 standard; DNA; 20 BP.
XX
AC   AAL53958;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related ribonucleotide, SEQ ID No 8.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 4; Fig 3; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents a ribonucleotide relating to the
CC   mutation detecting method of the invention
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db         20 AAAAAAAAATTTTAAAAAA 2


RESULT 5371
AAL53962
ID   AAL53962 standard; DNA; 20 BP.
```

```
XX
AC   AAL53962;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 12.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 4; Fig 3; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAAA 2804
              |||||||    ||||||||
Db          1 AAAAAAATTTTAAAAAAAA 19


RESULT 5372
AAL53960/c
ID   AAL53960 standard; DNA; 20 BP.
XX
AC   AAL53960;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related ribonucleotide, SEQ ID No 10.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 4; Fig 3; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents a ribonucleotide relating to the
CC   mutation detecting method of the invention
XX
SQ   Sequence 20 BP; 4 A; 0 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAAA 2804
              |||||||||    ||||||
Db         20 AAAAAAAAATTTTAAAAAA 2


RESULT 5373
AAL53964
ID   AAL53964 standard; DNA; 20 BP.
XX
AC   AAL53964;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 14.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
```

```
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||     ||||||||
Db          1 AAAAAAATGTTAAAAAAAA 19


RESULT 5374
AAL53966
ID   AAL53966 standard; DNA; 20 BP.
XX
AC   AAL53966;
XX
DT   18-FEB-2003  (first entry)
XX
DE   DNA mutation detection related oligo, SEQ ID No 16.
XX
KW   Detecting; point mutation; hybridising; target DNA; duplex; RNase H;
KW   single nucleotide polymorphism; ss.
XX
OS   Unidentified.
XX
PN   US2002142308-A1.
XX
PD   03-OCT-2002.
XX
PF   30-MAR-2001; 2001US-00823634.
XX
PR   30-MAR-2001; 2001US-00823634.
XX
PA   (DATT/) DATTAGUPTA N.
PA   (TSEN/) TSENG T.
XX
PI   Dattagupta N,  Tseng T;
XX
DR   WPI; 2003-102506/09.
XX
PT   Detecting point mutation in DNA strand, by hybridizing target DNA strand
PT   having mutation with test DNA strand to form duplex, contacting the
PT   duplex with RNase H and determining the cleavage of test strand by RNase
PT   H.
XX
PS   Example 5; Fig 4; 26pp; English.
XX
CC   The invention relates to a novel method for detecting a point mutation in
CC   a DNA strand. The novel method comprises hybridising a target DNA strand
CC   containing or suspected of containing a point mutation with a test
CC   nucleic acid strand complementary to the DNA strand to form a target DNA
CC   strand/test nucleic acid strand duplex, contacting the duplex with an
CC   RNase H, and determining whether the ribonucleotide residues within the
CC   nucleotide sequence are cleaved by RNase H. The method is useful for
CC   detecting a point mutation in a DNA strand, where the point mutation to
CC   be detected is a single nucleotide polymorphism, preferably a
CC   polymorphism in a genome, e.g., a viral, bacterial, eukaryotic, mammalian
CC   or human genome. The method is useful to detect any nucleic acids from
CC   any species of organisms such as Acintobacter, Bacillus, Candida,
CC   Enterococcus, Haemophilus, Mycobacterium and Streptococcus, and viruses.
CC   This polynucleotide sequence represents an oligo relating to the mutation
CC   detecting method of the invention
XX
SQ   Sequence 20 BP; 16 A; 0 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              |||||||     ||||||||
Db          1 AAAAAAAGTGTAAAAAAAA 19


RESULT 5375
ACD05204/c
ID   ACD05204 standard; DNA; 20 BP.
XX
AC   ACD05204;
XX
DT   05-AUG-2003  (first entry)
XX
DE   Tumour necrosis factor alpha antisense oligonucleotide #207.
XX
KW   Tumour necrosis factor alpha; TNF-alpha; antiinflammatory; antirheumatic;
KW   antiarthritic; antidiabetic; dermatological; hepatotropic; antiasthmatic;
KW   inflammatory disorder; inflammatory bowel disease; Crohn's disease;
KW   colitis; rheumatoid arthritis; diabetes; pancreatitis;
KW   multiple sclerosis; atopic dermatitis; asthma; hepatitis;
KW   antisense technology; ss.
XX
OS   Synthetic.
XX
PN   US2003022848-A1.
XX
PD   30-JAN-2003.
XX
PF   02-APR-2001; 2001US-00824322.
XX
PR   05-OCT-1998;   98US-00166186.
PR   18-MAY-1999;   99US-00313932.
XX
PA   (BAKE/) BAKER B F.
PA   (BENN/) BENNETT C F.
PA   (BUTL/) BUTLER M M.
PA   (SHAN/) SHANAHAN W R.
XX
PI   Baker BF,  Bennett CF,  Butler MM,  Shanahan WR;
XX
DR   WPI; 2003-447433/42.
XX
PT   Treating inflammatory disorders such as inflammatory bowel disease,
PT   Crohn's disease or rheumatoid arthritis, in a subject, by administering
```

```
PT   oligonucleotide which inhibits expression of human tumor necrosis factor
PT   alpha.
XX
PS   Example 22; Page 37; 142pp; English.
XX
CC   The invention describes a method of treating an inflammatory disorder in
CC   an individual, comprising administering to the individual an
CC   oligonucleotide upto 30 nucleotides in length complementary to a nucleic
CC   acid molecule encoding human tumor necrosis factor (TNF)-alpha. The
CC   method is useful for treating an inflammatory disorder such as
CC   inflammatory bowel disease, Crohn's disease, colitis or rheumatoid
CC   arthritis, in an individual. The method is also useful for treating
CC   diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma,
CC   and hepatitis in an individual. This sequence represents an antisense
CC   oligonucleotide used to modulate expression of tumour necrosis factor
CC   alpha (TNF-alpha)
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 5.7e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1449 TGAACCCTGGAGACCAGAG 1467
              || |  |||||||||||  |
Db         19 TGGAATCTGGAGACCAGGG 1

RESULT 5376
AAA14463/c
ID   AAA14463 standard; RNA; 21 BP.
XX
AC   AAA14463;
XX
DT   21-AUG-2000  (first entry)
XX
DE   AUUUA RNA target sequence.
XX
KW   AUUUA sequence; RNA target molecule; RNA binding protein identification;
KW   ss.
XX
OS   Synthetic.
XX
PN   WO200020637-A1.
XX
PD   13-APR-2000.
XX
PF   16-SEP-1999;   99WO-US021672.
XX
PR   02-OCT-1998;   98US-00165868.
XX
PA   (MESS-) MESSAGE PHARM INC.
XX
PI   Giordano T,  Beach DL,  Temeles GL;
XX
DR   WPI; 2000-303802/26.
XX
PT   Nucleic acid molecules useful for identifying compounds affecting
PT   interactions between RNA molecules and identifying RNA binding proteins.
XX
PS   Example 1; Page 33; 58pp; English.
XX
CC   The invention relates to mRNA sequences which bind to RNA binding
CC   proteins, and their use for identifying RNA binding proteins and
CC   compounds which have an effect on the interactions between an RNA binding
CC   protein and an RNA molecule. The disclosed sequences are the 3'
CC   untranslated region (3' UTR) sequences APP-R1, APP-D3 and APP-I1 from the
CC   human amyloid precursor protein mRNA (AAA14456-A14458); the 3' UTR of
CC   human interleukin-10 (IL-10) mRNA (AAA14459); the 3' UTR of human erb-B2
CC   mRNA (AAA14460); and the 5' UTR of human insulin-like growth factor I
CC   receptor (IGF-IR) mRNA (AAA14461). The disclosed mRNA sequences may be
CC   used to identify compounds affecting interactions between an RNA molecule
CC   comprising the sequence and an RNA binding protein. Such compounds can
CC   then be included with a carrier in pharmaceutical compositions for
CC   altering expression of a gene comprising the sequences, which can be
CC   administered to individuals or cells requiring altered expression of the
CC   gene. The mRNA sequences are also useful to identify RNA binding proteins
CC   which interact with them. Compounds identified as having the ability to
CC   affect such RNA binding interactions may therefore be useful as drugs for
CC   modulating protein levels in disease states. The present sequence
CC   represents an AUUUA RNA sequence used as a target molecule in an
CC   exemplification of the invention in an assay for detecting interactions
CC   between RNA molecules and RNA binding proteins
XX
SQ   Sequence 21 BP; 6 A; 0 C; 0 G; 0 T; 15 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 21;
  Best Local Similarity   78.9%;  Pred. No. 5.8e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||| ||| ||| ||| |||
Db         20 AAATAAATAAATAAATAAA 2

RESULT 5377
AAL50228/c
ID   AAL50228 standard; mRNA; 21 BP.
XX
AC   AAL50228;
XX
DT   13-FEB-2003  (first entry)
XX
DE   Human ARE-mRNA sequence #1.
XX
KW   ARE-mRNA; protein secretion inhibition; ARE-mRNA regulation;
KW   inflammation; arthritis; autoimmune disease; septic shock; blood clot;
KW   stroke; TNFalpha; tumour necrosis factor alpha; antiinflammatory;
KW   antiarthritic; antibacterial; immunosuppressive; cerebroprotective;
KW   antipyretic; immunomodulator; adenylate-uridylate rich element; ss.
XX
OS   Homo sapiens.
XX
PN   WO200283842-A2.
XX
PD   24-OCT-2002.
XX
PF   08-APR-2002; 2002WO-US010898.
XX
PR   10-APR-2001; 2001US-0282974P.
XX
PA   (MESS-) MESSAGE PHARM INC.
XX
PI   Giordano T,  Sturgess MA;
XX
DR   WPI; 2003-046924/04.
XX
PT   Modulating Adenylate-Uridylate Rich element-mRNA regulation involves
PT   administering new amide compound that inhibits secretion of protein
PT   encoded by ARE-mRNA, useful for treating inflammation, arthritis and
PT   autoimmune diseases.
XX
PS   Disclosure; Fig 5; 147pp; English.
XX
CC   The present invention relates to a method of modulating the regulation of
CC   an adenylate-uridylate rich element (ARE)-mRNA, which involves
CC   administering new compounds that inhibits secretion of a protein encoded
CC   by an ARE-mRNA. This can be used in the treatment of inflammation,
CC   arthritis, autoimmune diseases, septic shock, blood clot, stroke, fever,
CC   acute respiratory distress syndrome (ARDS) and cachexia. The present
CC   sequence is an ARE-mRNA shown in the exemplification of the invention
XX
SQ   Sequence 21 BP; 6 A; 0 C; 0 G; 1 T; 14 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 21;
  Best Local Similarity   78.9%;  Pred. No. 5.8e+03;
```

```
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||| ||| ||| ||| |||
Db         20 AAATAAATAAATAAATAAA 2

RESULT 5378
AAL53707/c
ID   AAL53707 standard; RNA; 21 BP.
XX
AC   AAL53707;
XX
DT   07-FEB-2003  (first entry)
XX
DE   Adenylate Uridylate-rich element motif SEQ ID No 1.
XX
KW   Target RNA; target RNA:support-attached test compound; flow cytometry;
KW   mass spectrometry; high-throughput screening; RNA motif; ss.
XX
OS   Homo sapiens.
XX
PN   WO200283837-A1.
XX
PD   24-OCT-2002.
XX
PF   11-APR-2002; 2002WO-US011758.
XX
PR   11-APR-2001; 2001US-0282966P.
XX
PA   (PTCT-) PTC THERAPEUTICS INC.
XX
PI   Almstead NG;
XX
DR   WPI; 2003-075534/07.
XX
PT   Identifying a test compound that binds to a target RNA molecule by
PT   separating the detectably labeled target RNA:support-attached test
PT   compound complex from uncomplexed target RNA molecules and test compounds
PT   by flow cytometry.
XX
PS   Disclosure; Page 16; 131pp; English.
XX
CC   The invention relates to a novel method for identifying a test compound
CC   that binds to a target RNA molecule comprising separating the detectably
CC   labeled target RNA:support-attached test compound complex from
CC   uncomplexed target RNA molecules and test compounds. The separating
CC   process is carried out by flow cytometry and determining a structure of
CC   the type of test compound of the RNA:support-attached test compound
CC   complex by mass spectrometry. The method is useful for high-throughput
CC   screening of libraries of compounds to identify pharmaceutical leads.
CC   This polynucleotide sequence represents one of the target RNA motifs/
CC   regions of the invention
XX
SQ   Sequence 21 BP; 6 A; 0 C; 0 G; 0 T; 15 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 21;
  Best Local Similarity   78.9%;  Pred. No. 5.8e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||| ||| ||| ||| |||
Db         20 AAATAAATAAATAAATAAA 2

RESULT 5379
AAD49639/c
ID   AAD49639 standard; mRNA; 21 BP.
XX
AC   AAD49639;
XX
DT   24-MAR-2003  (first entry)
XX
DE   Human adenylate uridylate-rich element (ARE) motif mRNA #1.
XX
KW   Amyloidosis; haemophilia; Alzheimer's disease; atherosclerosis; cancer;
KW   gigantism; dwarfism; hypothyroidism; hyperthyroidism; cystic fibrosis;
KW   autoimmune disorder; aging; inflammation; diabetes; obesity; anorectic;
KW   neurodegenerative disorder; Parkinson's disease; gene therapy; virucide;
KW   haemostatic; antibacterial; nootropic; neuroprotective; cytostatic;
KW   fungicide; human; adenylate uridylate-rich element; ARE; ss.
XX
OS   Homo sapiens.
XX
PN   WO200283953-A1.
XX
PD   24-OCT-2002.
XX
PF   11-APR-2002; 2002WO-US011757.
XX
PR   11-APR-2001; 2001US-0282965P.
XX
PA   (PTCT-) PTC THERAPEUTICS INC.
XX
PI   Rando R,  Welch E;
XX
DR   WPI; 2003-075561/07.
XX
PT   Identifying a test compound that binds to a target RNA molecule for
PT   treating or preventing amyloidosis, hemophilia, cancer, gigantism,
PT   diabetes, by contacting a detectably labeled target RNA molecule with a
PT   library of test compounds.
XX
PS   Example; Page 18; 152pp; English.
XX
CC   The invention relates to a method for identifying a test compound that
CC   binds to a target RNA molecule, which comprises contacting a detectably
CC   labelled target RNA molecule with a library of test compounds under
CC   conditions that permit direct binding of the labelled target RNA to a
CC   member of the library of test compounds so that a detectably labeled
CC   target RNA:test compound complex is formed. The method is useful for
CC   screening libraries of compounds for those that are selectively bind to a
CC   pre-selected target RNA. The compounds are useful for inhibiting the
CC   formation of a specific bound RNA:host cell factor complexes in vivo.
CC   They are also useful for treating or preventing diseases associated with
CC   overproduction or decreased protein function, such as amyloidosis,
CC   haemophilia, Alzheimer's disease, atherosclerosis, cancer, gigantism,
CC   dwarfism, hypothyroidism, hyperthyroidism, autoimmune disorders, aging,
CC   inflammation, cystic fibrosis, diabetes, obesity, neurodegenerative
CC   disorders, Parkinson's disease or infections (bacterial, viral, fungal).
CC   The invention is also used in gene therapy. The present sequence is human
CC   adenylate uridylate-rich element (ARE) motif mRNA. This sequence is used
CC   to illustrate the method of the invention
XX
SQ   Sequence 21 BP; 6 A; 0 C; 0 G; 0 T; 15 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 21;
  Best Local Similarity   78.9%;  Pred. No. 5.8e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAAAA 2804
              ||| ||| ||| ||| |||
Db         20 AAATAAATAAATAAATAAA 2

RESULT 5380
ACC83520/c
ID   ACC83520 standard; mRNA; 21 BP.
XX
AC   ACC83520;
XX
DT   08-SEP-2003  (first entry)
XX
DE   AU rich element (ARE).
XX
KW   AU-rich element; ARE; exosome; mRNA turnover; antiinflammatory;
```

KW cytostatic; ss.
XX
OS Unidentified.
XX
PN WO2003044166-A2.
XX
PD 30-MAY-2003.
XX
PF 14-NOV-2002; 2002WO-US036665.
XX
PR 15-NOV-2001; 2001US-0334712P.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Chen C, Karin M;
XX
DR WPI; 2003-457602/43.
XX
PT New purified mammalian exosome, useful for treating immune diseases e.g.
PT diabetes, cirrhosis, scleroderma, lupus, arthritis, or multiple
PT sclerosis, inflammatory diseases, cancer, or hormone deficiency disease
PT e.g. osteoporosis.
XX
PS Disclosure; Page 53; 127pp; English.
XX
CC The present sequence is that of a Group I Cluster AU rich element (ARE).
CC AREs play a role in mRNA stability. The invention provides methods of
CC altering the level of ARE-containing RNA, e.g. an RNA containing the
CC present motif. The human exosome has been purified and characterised. It
CC promotes the degradation of ARE-containing RNAs. A claimed method for
CC altering the level of an ARE-containing RNA involves contacting the RNA
CC with an ARE-binding protein, a mammalian (human) exosome and an agent
CC that alters the level of binding of the exosome to the ARE-binding
CC protein. Levels of mRNA are decreased or increased by impacting the level
CC of degradation of the mRNA. Reducing the level of a cytokine, proto-
CC oncogene or growth factor RNA can be used to treat an immune disease,
CC inflammatory disease or cancer. Increasing the level of a target RNA can
CC be performed in a subject capable of developing a hormone deficiency
XX
SQ Sequence 21 BP; 6 A; 0 C; 0 G; 0 T; 15 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 21;
Best Local Similarity 78.9%; Pred. No. 5.8e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAAA 2804
||| ||| ||| ||| |||
Db 20 AAATAAATAAATAAATAAA 2

RESULT 5381
ADE86000/c
ID ADE86000 standard; RNA; 21 BP.
XX
AC ADE86000;
XX
DT 29-JAN-2004 (first entry)
XX
DE AU-rich element motif.
XX
KW Human; AU-rich element; antiinflammatory; Hu-antigen R; ss.
XX
OS Synthetic.
XX
PN WO2003087815-A2.
XX
PD 23-OCT-2003.
XX
PF 16-APR-2003; 2003WO-EP004008.
XX
PR 17-APR-2002; 2002US-0373207P.
XX
PA (NOVS) NOVARTIS AG.
PA (NOVS) NOVARTIS PHARMA GMBH.
XX
PI Auer M, Meisner N, Uhl V;
XX
DR WPI; 2003-833795/77.
XX
PT Identifying an agent having inhibitory effects on the complex-formation
PT of ARE-containing mRNA and HuR protein, useful for treating disorders
PT with aberrant production of a cytokine, growth factor, proto-oncogene or
PT a viral protein.
XX
PS Example 5; Page 20; 32pp; English.
XX
CC The present sequence is that of an AU-rich element (ARE) motif. A 2-
CC dimensional FIDA anisotropy analysis was performed to determine the
CC affinity of human Hu-antigen R (HuR) for this, and other, AREs. Kd values
CC of soluble and non-soluble forms of full-length HuR ADE85987 for the ARE
CC were 0.4 +/- 0.05 and 23.47 +/- 8.92 nM, respectively. The RNA sequence
CC motif NNUUNNUUU was identified as the binding site for HuR. The complex
CC formation of an ARE-containing mRNA with an HuR protein induces the
CC expression of various disease causing/mediating substances, such as
CC inflammatory acting substances, e.g. cytokines, growth factors, proto-
CC oncogenes and viral proteins. Agents which inhibit complex formation may
CC thus prevent the expression of such substances and may be used in the
CC treatment of e.g. inflammatory diseases. The invention provides an assay
CC for identifying compounds with an inhibitory effect on selected HuR-ARE
CC target interactions. A pharmaceutical composition comprising an agent
CC identified by the assay can be used to treat a disorder having an
CC aetiology associated with the production of a cytokine, growth factor
CC proto-oncogene or a viral protein.
XX
SQ Sequence 21 BP; 6 A; 0 C; 0 G; 0 T; 15 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 21;
Best Local Similarity 78.9%; Pred. No. 5.8e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAAAA 2804
||| ||| ||| ||| |||
Db 20 AAATAAATAAATAAATAAA 2

RESULT 5382
AAH91420
ID AAH91420 standard; DNA; 21 BP.
XX
AC AAH91420;
XX
DT 09-OCT-2001 (first entry)
XX
DE Human inflammatory bowel disease associated polymorphic site #495.
XX
KW Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT misc_feature 10
FT /*tag= a
FT /note= "SNP, optionally T or C at this position"
XX
PN WO200142511-A2.
XX
PD 14-JUN-2001.
XX
PF 11-DEC-2000; 2000WO-US033632.
XX
PR 10-DEC-1999; 99US-0170257P.
PR 10-APR-2000; 2000US-0196046P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.

PA (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI Daly M, Hudson TJ, Lander ES, Rioux J, Siminovitch K;
XX
DR WPI; 2001-367874/38.
XX
PT Testing for the presence of polymorphisms associated with inflammatory
PT bowel disease, using a hybridization assay.
XX
PS Claim 1; Page 59; 463pp; English.
XX
CC The present invention describes a method for detecting the presence of
CC polymorphisms associated with inflammatory bowel diseases such as
CC ulcerative colitis and Crohn's disease. The methods can be used to detect
CC the presence of genetic polymorphisms associated with inflammatory bowel
CC disease and correlating their occurrence with disease states. They may be
CC used in this way for phenotypic correlations, forensics, paternity
CC testing, medicine and genetic analysis. The present sequence is a
CC polymorphic site described in the exemplification of the invention
XX
SQ Sequence 21 BP; 1 A; 3 C; 2 G; 14 T; 0 U; 1 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 21;
Best Local Similarity 75.0%; Pred. No. 5.8e+03;
Matches 15; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 2174 TTTTTTTTTTTTTAACTTTG 2193
|||||||| ||| ||||
Db 1 TTTTTTTTGNTTTCCATTTG 20

RESULT 5383
AAT28053/c
ID AAT28053 standard; DNA; 22 BP.
XX
AC AAT28053;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer K for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,
PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 4 A; 3 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 22;
Best Local Similarity 78.9%; Pred. No. 5.9e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1977 TGAAAAAAAGAAAAGTGTG 1995
| ||||||| ||||| ||
Db 22 TTAAAAAAAAAAAAGCTTG 4

RESULT 5384
AAT58493/c
ID AAT58493 standard; DNA; 22 BP.
XX
AC AAT58493;
XX
DT 24-MAR-1997 (first entry)
XX
DE First primer #10 for use in enhanced differential display method.
XX
KW Differential Display; Enhanced Differential Display; EDD; screening;
KW gene expression; cell type; different; cell development; gene typing;
KW identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS Synthetic.
XX
PN US5580726-A.
XX
PD 03-DEC-1996.
XX
PF 29-APR-1994; 94US-00235180.
XX
PR 29-APR-1994; 94US-00235180.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Feng J, Villeponteau B, Funk W;
XX
DR WPI; 1997-033564/03.
XX
PT Detection of differentially expressed mRNA mols. - using two-step
PT polymerase chain reaction amplification method.
XX
PS Claim 9; Col 17; 15pp; English.
XX
CC An improved method of Differential Display, named Enhanced Differential
CC Display (EDD) has been designed as a technique for screening differences
CC in gene expression between various cell types or between different stages
CC of cell development. The technique is highly reproducible, leading to
CC precise typing of the expressed genes in any given cell. EDD analysis
CC permits the identification of novel genes involved in differentiation,
CC aging and disease, and enables direct comparisons of different cell types

CC and disease states. By using longer primers, and/or an alteration in the
CC annealing temperatures, the number of false positives can be reduced.
CC First, cDNA is prepared from total cellular RNA using 12 different 22-
CC base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC of pol II mRNA transcripts. The last two bases of each primer varies so
CC as to anchor the primer to the 3' end of different sets of mRNAs. A
CC second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC amplification of a subset of cDNAs is carried out in a two step process
CC using particular 5' and 3' primers. The amplified gene products can then
CC be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ Sequence 22 BP; 4 A; 3 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 22;
Best Local Similarity 78.9%; Pred. No. 5.9e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1977 TGAAAAAAAGAAAAGTGTG 1995
| ||||||| ||||| ||
Db 22 TTAAAAAAAAAAAAGCTTG 4

RESULT 5385
AAZ47351/c
ID AAZ47351 standard; DNA; 22 BP.
XX
AC AAZ47351;
XX
DT 06-MAR-2000 (first entry)
XX
DE PCR primer K used in differential display analysis of Aspergillus oryzae.
XX
KW Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS Synthetic.
OS Aspergillus oryzae.
XX
PN WO9960136-A1.
XX
PD 25-NOV-1999.
XX
PF 14-MAY-1999; 99WO-US010689.
XX
PR 15-MAY-1998; 98US-00079344.
PR 15-MAY-1998; 98US-00079601.
XX
PA (NOVO) NOVO NORDISK BIOTECH INC.
PA (NOVO) NOVO-NORDISK AS.
XX
PI Wahleithner J, Christensen T;
XX
DR WPI; 2000-062459/05.
XX
PT New isolated Aspergillus oryzae signaling sequences, used to increase the
PT production of polypeptides by recombinant host filamentous fungal cells.
XX
PS Example 2; Page 35; 78pp; English.
XX
CC Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC differential display analysis of the Aspergillus oryzae strains HC4.01
CC and 27. The strains were analysed to find the genetic basis for phenotype
CC differences in the strains which are used in a method for producing a
CC polypeptide in an enhanced amount. The method involves cultivating a
CC mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC The mutant cell contains the nucleotide sequence encoding the polypeptide
CC to be synthesised and one or more second nucleotide sequences encoding a
CC DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC the polypeptide than the parent cell and the polypeptide can be recovered
CC from the nutrient medium of the mutant cell. The method can be used for
CC the production of polypeptides such as hormones, receptors, antibodies,
CC reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC ribonuclease, transglutaminase or xylanase
XX
SQ Sequence 22 BP; 4 A; 3 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 22;
Best Local Similarity 78.9%; Pred. No. 5.9e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1977 TGAAAAAAAGAAAAGTGTG 1995
| ||||||| ||||| ||
Db 22 TTAAAAAAAAAAAAGCTTG 4

RESULT 5386
AAH22194/c
ID AAH22194 standard; DNA; 22 BP.
XX
AC AAH22194;
XX
DT 20-AUG-2001 (first entry)
XX
DE Human hepatocyte auxin related 3'-(T-rich) primer J.
XX
KW Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS Homo sapiens.
XX
PN CN1280985-A.
XX
PD 24-JAN-2001.
XX
PF 20-JUL-1999; 99CN-00110801.
XX
PR 20-JUL-1999; 99CN-00110801.
XX
PA (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI Kong X, Yi X, Zeng P;
XX
DR WPI; 2001-291394/31.
XX
PT Novel recombinant human hepatocyte auxin, its preparation and clinical
PT application.
XX
PS Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC The present invention describes a differential indication PCR (polymerase
CC chain reaction) technique which is used to obtain a new complete gene
CC able to promote the repair of damaged liver cells and with substance
CC total length of 0.7 kb by screening the cDNA library of human foetal
CC liver. The induction expression of engineering bacteria, the separation
CC and cracking of inclusion body and the process for restoring and
CC decontaminating proteins are built up to obtain high purity recombinant
CC human hepatocyte auxin. It can externally promote the reproduction of
CC primary culture liver cells and liver cancer cells BEL-7402 and
CC internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC damaged and the repair of liver cells. The method may be used to treat
CC serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC present sequence represents a primer which is used in the exemplification
CC of the present invention
XX
SQ Sequence 22 BP; 4 A; 3 C; 3 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 22;
Best Local Similarity 78.9%; Pred. No. 5.9e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy       1977 TGAAAAAAAGAAAAGTGTG 1995
                | ||||||| ||||| ||
Db         22 TTAAAAAAAAAAAAAGCTTG 4
```

RESULT 5387
AAS01584/c
ID AAS01584 standard; DNA; 22 BP.
XX
AC AAS01584;
XX
DT 18-JUL-2001 (first entry)
XX
DE Human fibrillin-1 (FBN1) CpG island 5'-bisulfite PCR primer.
XX
KW Human; T-type calcium channel; CACNA1G; cytosine methylation; CpG island;
KW cellular proliferative disorder; colorectal cancer; age related disease;
KW apolipoprotein B; APOB; caudal type homeobox transcription factor 2;
KW CDX2; epidermal growth factor receptor; EGFR; fibrillin-1; FBN1;
KW G protein-coupled receptor 37; GPR37; heat shock 70kD protein 6; HSP70B';
KW HSPA6; RasGAP-related protein; IQGAP2; proteinase-activated receptor 2;
KW PAR2; paired-like homeodomain transcription factor 2; PITX2; klotho; KL;
KW patched A; patched B; PTCHA; PTCHB; syndecan 1; syndecan 4; SDC1; SDC4;
KW chromosome 15q21; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200119845-A1.
XX
PD 22-MAR-2001.
XX
PF 14-SEP-2000; 2000WO-US025479.
XX
PR 15-SEP-1999; 99US-00398522.
XX
PA (UYJO) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
XX
PI Issa J;
XX
DR WPI; 2001-244777/25.
XX
PT New nucleic acid molecule for use as a marker for screening cancer,
PT comprises the coding region for a T-type calcium channel and regulatory
PT sequences associated with the channel.
XX
PS Claim 21; Page 34; 125pp; English.
XX
CC The present sequence for 5'-bisulfite PCR primer is used to study the
CC methylation state of human fibrillin-1 (FBN1) which maps to chromosome
CC 15q21.1. The methylation state of specific regions within CpG islands
CC associated with a novel T-type calcium channel CACNA1G gene correlate
CC with several cancerous phenotypes involving various tissue and cell
CC types. Since aberrant methylation of normally unmethylated CpG islands is
CC often observed in immortalised and transformed cells, CACNA1G is
CC implicated in cellular proliferative disorders e.g. leukaemia,
CC colorectal, lung, breast and other cancers. The nucleic acid coding for
CC CACNA1G is useful as a marker for screening cancer and age related
CC diseases. A diagnostic kit containing primers (AAS01574-AAS01623) for
CC amplification of a CpG-containing nucleic acid, where the primer
CC hybridises with a target polynucleotide sequence (AAS01627-AAS01676), can
CC be used for detecting aberrant methylation. The CpG island sequences
CC (AAS01677-AAS01692) are selected from genes encoding CACNA1G,
CC apolipoprotein B (APOB), caudal type homeobox transcription factor 2
CC (CDX2), epidermal growth factor receptor (EGFR), fibrillin-1 (FBN1), G
CC protein-coupled receptor 37 (GPR37), heat shock 70kD protein 6 (HSP70B';
CC HSPA6), RasGAP-related protein (IQGAP2), klotho (KL), proteinase-
CC activated receptor 2 (PAR2), paired-like homeodomain transcription factor
CC 2 (PITX2), patched A and B (PTCHA; PTCHB) and syndecan 1 and 4 (SDC1;
CC SDC4) or a MINT31 sequence
XX
SQ Sequence 22 BP; 3 A; 0 C; 3 G; 15 T; 0 U; 1 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 22;
Best Local Similarity 71.4%; Pred. No. 5.9e+03;
Matches 15; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

```
Qy       2779 AGAATTGAAAAAAAAAAAAAA 2799
              | |||| | : || |||||||
Db         21 AAAATTAACRCAATAAAAAAA 1
```

RESULT 5388
AAS01637
ID AAS01637 standard; DNA; 22 BP.
XX
AC AAS01637;
XX
DT 18-JUL-2001 (first entry)
XX
DE Human fibrillin-1 (FBN1) 5'-target sequence for bisulfite PCR.
XX
KW Human; T-type calcium channel; CACNA1G; cytosine methylation; CpG island;
KW cellular proliferative disorder; colorectal cancer; age related disease;
KW apolipoprotein B; APOB; caudal type homeobox transcription factor 2;
KW CDX2; epidermal growth factor receptor; EGFR; fibrillin-1; FBN1;
KW G protein-coupled receptor 37; GPR37; heat shock 70kD protein 6; HSP70B';
KW HSPA6; RasGAP-related protein; IQGAP2; proteinase-activated receptor 2;
KW PAR2; paired-like homeodomain transcription factor 2; PITX2; klotho; KL;
KW patched A; patched B; PTCHA; PTCHB; syndecan 1; syndecan 4; SDC1; SDC4;
KW chromosome 15q21; ds.
XX
OS Homo sapiens.
XX
PN WO200119845-A1.
XX
PD 22-MAR-2001.
XX
PF 14-SEP-2000; 2000WO-US025479.
XX
PR 15-SEP-1999; 99US-00398522.
XX
PA (UYJO) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
XX
PI Issa J;
XX
DR WPI; 2001-244777/25.
XX
PT New nucleic acid molecule for use as a marker for screening cancer,
PT comprises the coding region for a T-type calcium channel and regulatory
PT sequences associated with the channel.
XX
PS Claim 20; Page 37; 125pp; English.
XX
CC The present sequence for human fibrillin-1 (FBN1) 5'-target sequence
CC (complementary to the 5'-bisulfite PCR primer) is used to study the
CC methylation state of FBN1 which maps to chromosome 15q21.1. The
CC methylation state of specific regions within CpG islands associated with
CC a novel T-type calcium channel CACNA1G gene correlate with several
CC cancerous phenotypes involving various tissue and cell types. Since
CC aberrant methylation of normally unmethylated CpG islands is often
CC observed in immortalised and transformed cells, CACNA1G is implicated in
CC cellular proliferative disorders e.g. leukaemia, colorectal, lung, breast
CC and other cancers. The nucleic acid coding for CACNA1G is useful as a
CC marker for screening cancer and age related diseases. A diagnostic kit
CC containing primers (AAS01574-AAS01623) for amplification of a CpG-
CC containing nucleic acid, where the primer hybridises with a target
CC polynucleotide sequence (AAS01627-AAS01676), can be used for detecting
CC aberrant methylation. The CpG island sequences (AAS01677-AAS01692) are
CC selected from genes encoding CACNA1G, apolipoprotein B (APOB), caudal
CC type homeobox transcription factor 2 (CDX2), epidermal growth factor
CC receptor (EGFR), FBN1, G protein-coupled receptor 37 (GPR37), heat shock
CC 70kD protein 6 (HSP70B'; HSPA6), RasGAP-related protein (IQGAP2), klotho
CC (KL), proteinase-activated receptor 2 (PAR2), paired-like homeodomain
CC transcription factor 2 (PITX2), patched A and B (PTCHA; PTCHB) and
CC syndecan 1 and 4 (SDC1; SDC4) or a MINT31 sequence
XX

```
SQ   Sequence 22 BP; 15 A; 3 C; 0 G; 3 T; 0 U; 1 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   71.4%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    1;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2779 AGAATTGAAAAAAAAAAAAAA 2799
              | |||| | : || |||||||
Db          2 AAAATTAACRCAATAAAAAAA 22


RESULT 5389
AAT28049/c
ID   AAT28049 standard; DNA; 22 BP.
XX
AC   AAT28049;
XX
DT   31-DEC-1996  (first entry)
XX
DE   3'-primer F for human fibroblasts.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW   enhanced differential display; EDD; mRNA preparation; senescent cell;
KW   quiescent cell; dividing cell; senescence-related gene; gene expression;
KW   non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW   donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS   Synthetic.
XX
PN   WO9613610-A2.
XX
PD   09-MAY-1996.
XX
PF   24-AUG-1995;   95WO-US011230.
XX
PR   31-OCT-1994;   94US-00332420.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Hirsch KS,  Villeponteau B,  Feng J,  Funk W,  West MD;
XX
DR   WPI; 1996-251464/25.
XX
PT   Identifying, isolating and regulating senescence-related genes - useful
PT   to ameliorate problems associated with accumulation of senescent cells,
PT   e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS   Claim 6; Page 25; 135pp; English.
XX
CC   AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC   differential display (EDD), which is used in conjuncture with the method
CC   of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC   represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC   5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC   complementary to the poly-A tail of the mRNA. In the method of the
CC   invention, mRNA is isolated from a senescent cell, and a young quiescent
CC   cell, and the mRNAs are amplified in separate reaction mixtures. The
CC   amplified sequences are then separated by size or charge, and the
CC   products are analysed to identify a gene from young quiescent cells and
CC   dividing cells, that is present at a different level from senescent
CC   cells. The method can be used for the rapid and efficient identification
CC   and isolation of senescence-related genes and gene products, and to
CC   detect and distinguish between senescent and non-senescent cells. It can
CC   also be used to destroy cells expressing senescence specific (or related)
CC   gene products, and to screen for compounds capable of altering gene
CC   expression in senescent cells. The method can also be used to ameliorate
CC   problems associated with the accumulation of senescent cells such as age-
CC   related lipofuscin accumulation in the retina, and in the treatment of
CC   AIDS. Also, the method can be used to distinguish young cells from
CC   senescent cells in donor tissue, which is useful in removing senescent
CC   melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC   spots
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1977 TGAAAAAAAGAAAAGTGTG 1995
              | ||||||| |||||  ||
Db         22 TCAAAAAAAAAAAAGCTTG 4


RESULT 5390
AAT58489/c
ID   AAT58489 standard; DNA; 22 BP.
XX
AC   AAT58489;
XX
DT   24-MAR-1997  (first entry)
XX
DE   First primer #6 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 15; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1977 TGAAAAAAAGAAAAGTGTG 1995
              | ||||||| |||||  ||
```

```
Db         22 TCAAAAAAAAAAAAGCTTG 4

RESULT 5391
AAZ47347/c
ID   AAZ47347 standard; DNA; 22 BP.
XX
AC   AAZ47347;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer F used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1977 TGAAAAAAAGAAAAGTGTG 1995
             | ||||||| |||||  ||
Db         22 TCAAAAAAAAAAAAGCTTG 4


RESULT 5392
AAH22190/c
ID   AAH22190 standard; DNA; 22 BP.
XX
AC   AAH22190;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer F.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1977 TGAAAAAAAGAAAAGTGTG 1995
             | ||||||| |||||  ||
Db         22 TCAAAAAAAAAAAAGCTTG 4


RESULT 5393
AAV47448/c
ID   AAV47448 standard; DNA; 22 BP.
XX
AC   AAV47448;
XX
DT   10-NOV-1998  (first entry)
XX
DE   Antisense oligonucleotide 2, targeting adenosine A2b receptor.
XX
KW   Secondary structure; mRNA; phosphorothioate backbone; G-protein;
KW   bronchoconstriction; lung inflammation; asthma; pulmonary disease;
KW   allergy; emphysema; cystic fibrosis; ss.
XX
OS   Synthetic.
```

```
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .22
FT                   /*tag=  a
FT                   /note= "contains phosphorothioate internucleotide
FT                   linkages"
XX
PN   WO9823294-A1.
XX
PD   04-JUN-1998.
XX
PF   26-NOV-1997;   97WO-US022017.
XX
PR   26-NOV-1996;   96US-00757024.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
DR   WPI; 1998-322464/28.
XX
PT   Treating respiratory disease with antisense sequences directed against
PT   adenosine or bradykinin receptors - with localised delivery to the
PT   respiratory system, suitable for long term treatment of asthma, adult
PT   respiratory distress syndrome etc.
XX
PS   Claim 13; Page 24; 47pp; English.
XX
CC   Sequences AAV47447-V47451 are anti-sense oligonucleotides that target the
CC   human adenosine A2b receptor, the design of which required the secondary
CC   structure of this targets mRNA. The adenosine receptor mRNA secondary
CC   structure was both analysed and used to construct antisense
CC   oligonucleotides containing a phosphorothioate backbone. Once the
CC   antisense molecules are created they can be used to target their
CC   predetermined target, thus causing the gene product to decrease. The
CC   antisense oligonucleotides were targeted to specific mRNA regions
CC   containing either a junction between the intron and exon, or where they
CC   may overlap the initiation codon. The receptor is a member of the G-
CC   protein coupled family of cell surface receptors that have 7-
CC   transmembrane segments. These oligonucleotides can be used to treat or
CC   prevent conditions associated with bronchoconstriction and/or lung
CC   inflammation in humans or other animals e.g. asthma, pulmonary disease,
CC   allergy, emphysema and cystic fibrosis
XX
SQ   Sequence 22 BP; 1 A; 9 C; 11 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 22;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1286 GGGACCAGCAGGCTCGCCC 1304
              ||| ||||| ||| || ||
Db         19 GGGCCCAGCTGGCCCGGCC 1


RESULT 5394
ADC66134/c
ID   ADC66134 standard; DNA; 23 BP.
XX
AC   ADC66134;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human CFTR exon 21 PCR primer #1.
XX
KW   typing; variable site; cystic fibrosis; human;
KW   cystic fibrosis transmembrane conductance regulator; CFTR; PCR primer;
KW   ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO2003074737-A1.
XX
PD   12-SEP-2003.
XX
PF   07-MAR-2003; 2003WO-SE000394.
XX
PR   07-MAR-2002; 2002SE-00000695.
XX
PA   (PYRO-) PYROSEQUENCING AB.
XX
PI   Schiller A,  Dunker J;
XX
DR   WPI; 2003-731684/69.
XX
PT   Typing at least two variable sites of at least one nucleic acid molecule
PT   related to cystic fibrosis by simultaneously or sequentially performing
PT   primer extension reactions and determining the pattern of nucleotide
PT   incorporation.
XX
PS   Example 2; Page 29; 69pp; English.
XX
CC   The present invention describes a method for typing at least two variable
CC   sites of at least one nucleic acid molecule related to cystic fibrosis.
CC   The method comprises: (a) providing at least one nucleic acid molecule of
CC   a gene related to cystic fibrosis; (b) providing at least one extension
CC   primer, which binds to different predetermined sites in the nucleic acid
CC   molecules, where at least one extension primer is designed to extend over
CC   at least two potential variable sites in the nucleic acid molecule, and
CC   nucleotide; (c) simultaneously or sequentially performing primer
CC   extension reactions; and (d) determining the pattern of nucleotide
CC   incorporation to obtain a test pattern; optionally (e) comparing the test
CC   pattern of step (c) with one or more reference patterns, in order to type
CC   the variable sites of the nucleic acid molecules. Also described: (1)
CC   diagnosing the genetic predisposition of states, diseases and drug
CC   response related to the human cystic fibrosis transmembrane conductance
CC   regulator (CFTR) gene; and (2) a kit for use in the method for typing
CC   comprising at least one extension primer. The method is useful for typing
CC   at least two variable sites of at least one nucleic acid molecule related
CC   to cystic fibrosis. The present sequence represents a PCR primer for
CC   human CFTR, which is used in the exemplification of the present
CC   invention.
XX
SQ   Sequence 23 BP; 0 A; 5 C; 1 G; 16 T; 0 U; 1 Other;

  Query Match             0.4%;  Score 12.6;  DB 1;  Length 23;
  Best Local Similarity   78.9%;  Pred. No. 5.9e+03;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAAAAAAA 2803
              | |||||| |||| || ||
Db         23 GCAAAAAAGAAAAGAAGAA 5


RESULT 5395
ABL56411/c
ID   ABL56411 standard; DNA; 24 BP.
XX
AC   ABL56411;
XX
DT   22-JUL-2002  (first entry)
XX
DE   PCR primer F used to detect mutation N1303K causing cystic fibrosis.
XX
KW   Mutation; solid phase amplification; haemochromatosis; cancer;
KW   sickle-cell anaemia; beta-thalassemia; alpha-thalassemia; polymorphism;
KW   cystic fibrosis; haemophilia; neurodegeneration; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200212557-A1.
XX
PD   14-FEB-2002.
XX
```

PF 08-AUG-2001; 2001WO-FR002574.
XX
PR 08-AUG-2000; 2000FR-00010425.
XX
PA (NUCL-) NUCLEICA.
XX
PI Cailloux F, Gobron S;
XX
DR WPI; 2002-269096/31.
XX
PT Detecting mutations in nucleic acid, useful e.g. for diagnosing
PT hemochromatosis, by solid phase amplification to incorporate exonuclease
PT resistant nucleotide.
XX
PS Example 3; Fig 3; 43pp; French.
XX
CC PCR primers ABL56411-12 and probe ABL56413 were used to detect a mutation
CC responsible for cystic fibrosis. The primers and probe are used to
CC demonstrate the method of the invention. The specification describes a
CC method for detecting a mutation at position n in a target nucleic acid by
CC solid phase amplification process. The region of interest is amplified on
CC at least two separate supports (A, B) using at least one primer linked,
CC at its 5'-end, to the supports. The DNA strands are then separated and
CC strands in the suspension removed by washing. Bound DNA sequences are
CC hybridized to a probe, the 3'-end of which hybridizes up to, at most,
CC position n-1. The probe is elongated by adding complementary nucleotides
CC in the 5' to 3' direction, using a DNA polymerase and a nucleotide
CC derivative (dNTP*) that is resistant to exonuclease. The dNTP* used is
CC complementary to the mutation for support A but to the wild type for
CC support B. Products are digested with an exonuclease so that only probes
CC elongated by dNTP* are not degraded. The supports are then washed and non
CC -degraded probes detected (in)directly. The method is used to detect
CC mutations associated with disease, especially haemochromatosis; sickle-
CC cell anaemia; alpha or beta-thalassemia; cystic fibrosis; haemophilia;
CC neurodegeneration and cancer. The method is also used to study
CC polymorphisms of gene or an entire genetic region and for detecting
CC and/or identifying genetically modified organisms
XX
SQ Sequence 24 BP; 0 A; 6 C; 1 G; 17 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.6; DB 1; Length 24;
Best Local Similarity 78.9%; Pred. No. 5.9e+03;
Matches 15; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAAAAAAAAA 2803
| |||||| |||| || ||
Db 24 GCAAAAAAGAAAAGAAGAA 6

RESULT 5396
AAV09230/c
ID AAV09230 standard; DNA; 14 BP.
XX
AC AAV09230;
XX
DT 07-JUL-1998 (first entry)
XX
DE 3' poly(T) primer 6.
XX
KW 3' poly(T) primer; PCR; amplification; cytochrome P450 gene;
KW oxidative metabolism; P450RAI; retinoic acid; RA; promoter; ss.
XX
OS Synthetic.
XX
PN WO9749832-A2.
XX
PD 31-DEC-1997.
XX
PF 23-JUN-1997; 97WO-CA000488.
XX
PR 21-JUN-1996; 96US-00667546.
PR 01-OCT-1996; 96US-00724466.
XX
PA (TOOH) UNIV QUEENS KINGSTON.
XX
PI Petkovich PM;
XX
DR WPI; 1998-077193/07.
XX
PT Identifying DNA encoding inducible or suppressible cytochrome P450 - by
PT screening for drugs which reduce the catabolism of retinoic acid, useful
PT in cancer chemotherapy and the treatment of acne and psoriasis.
XX
PS Example 1; Page 50; 113pp; English.
XX
CC This is a 3' poly(T) PCR primer used in the amplification of the
CC inducible cytochrome P450RAI gene which specifically metabolises a
CC derivative of the retinoic acid (RA). The cytochrome P450 gene in general
CC produces enzymes involved in the oxidative metabolism of endogenous and
CC exogenous compounds. The cytochrome P450 nucleotide sequence can be used
CC to induce or suppress the expression of its protein. P450RAI is highly
CC induced by RA in cell lines and tissues. This allows for the development
CC of a drug screen using promoters and nucleotide sequences to identify
CC drugs which are useful for reducing the catabolism of RA
XX
SQ Sequence 14 BP; 2 A; 0 C; 0 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 14;
Best Local Similarity 92.9%; Pred. No. 3.6e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAA 2796
|| |||||||||||
Db 14 TTAAAAAAAAAAAA 1

RESULT 5397
AAV09234
ID AAV09234 standard; DNA; 14 BP.
XX
AC AAV09234;
XX
DT 07-JUL-1998 (first entry)
XX
DE 3' poly(T) primer 10.
XX
KW 3' poly(T) primer; PCR; amplification; cytochrome P450 gene;
KW oxidative metabolism; P450RAI; retinoic acid; RA; promoter; ss.
XX
OS Synthetic.
XX
PN WO9749832-A2.
XX
PD 31-DEC-1997.
XX
PF 23-JUN-1997; 97WO-CA000488.
XX
PR 21-JUN-1996; 96US-00667546.
PR 01-OCT-1996; 96US-00724466.
XX
PA (TOOH) UNIV QUEENS KINGSTON.
XX
PI Petkovich PM;
XX
DR WPI; 1998-077193/07.
XX
PT Identifying DNA encoding inducible or suppressible cytochrome P450 - by
PT screening for drugs which reduce the catabolism of retinoic acid, useful
PT in cancer chemotherapy and the treatment of acne and psoriasis.
XX
PS Example 1; Page 51; 113pp; English.
XX
CC This is a 3' poly(T) PCR primer used in the amplification of the
CC inducible cytochrome P450RAI gene which specifically metabolises a
CC derivative of the retinoic acid (RA). The cytochrome P450 gene in general
CC produces enzymes involved in the oxidative metabolism of endogenous and

```
CC   exogenous compounds. The cytochrome P450 nucleotide sequence can be used
CC   to induce or suppress the expression of its protein. P450RAI is highly
CC   induced by RA in cell lines and tissues. This allows for the development
CC   of a drug screen using promoters and nucleotide sequences to identify
CC   drugs which are useful for reducing the catabolism of RA
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTCA 14


RESULT 5398
AAV12222/c
ID   AAV12222 standard; DNA; 14 BP.
XX
AC   AAV12222;
XX
DT   22-JUN-1998  (first entry)
XX
DE   Poly(T) oligonucleotide used in differential display PCR.
XX
KW   Retinoid metabolising protein; P450RAI; retinoid oxidase; retinoic acid;
KW   zebrafish; inhibitor; antisense; cancer; actinic keratosis;
KW   oral leukoplakia; head tumour; neck tumour;
KW   non-small cell lung carcinoma; basal cell carcinoma;
KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis; ichthyosis;
KW   therapy; diagnosis; screening; differential display; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9749815-A1.
XX
PD   31-DEC-1997.
XX
PF   23-JUN-1997;   97WO-CA000440.
XX
PR   21-JUN-1996;   96US-00667546.
PR   01-OCT-1996;   96US-00724466.
XX
PA   (TOOH ) UNIV QUEENS KINGSTON.
XX
PI   Petkovich PM,  White JA,  Beckett BR,  Jones G;
XX
DR   WPI; 1998-077178/07.
XX
PT   Retinoid metabolising protein - useful to develop products to treat, e.g.
PT   cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
PT   ichthyosis.
XX
PS   Disclosure; Page 14; 110pp; English.
XX
CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
CC   transcription reactions on polyA+ RNA isolated from the fins of control
CC   or retinoic acid-treated zebrafish (Danio rerio). Several combinations of
CC   the polyT primers were used with degenerate upstream primers (see
CC   AAV12229-33) for differential display PCR. Bands demonstrating
CC   reproducible differential amplifications were found using the primers
CC   given in AAV12221 and AAV12231. This PCR product was reamplified (see
CC   AAV12234-35). A differential display product (see AAV12213) which
CC   exhibited a dependence on the presence of retinoic acid for its
CC   expression was isolated, and was used to isolate a full-length clone (see
CC   AAV12203) coding for a novel retinoid metabolising protein (see
CC   AAW44159), designated zP450RAI
XX
SQ   Sequence 14 BP; 2 A; 0 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||
Db         14 TTAAAAAAAAAAA 1


RESULT 5399
AAV12226
ID   AAV12226 standard; DNA; 14 BP.
XX
AC   AAV12226;
XX
DT   22-JUN-1998  (first entry)
XX
DE   Poly(T) oligonucleotide used in differential display PCR.
XX
KW   Retinoid metabolising protein; P450RAI; retinoid oxidase; retinoic acid;
KW   zebrafish; inhibitor; antisense; cancer; actinic keratosis;
KW   oral leukoplakia; head tumour; neck tumour;
KW   non-small cell lung carcinoma; basal cell carcinoma;
KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis; ichthyosis;
KW   therapy; diagnosis; screening; differential display; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9749815-A1.
XX
PD   31-DEC-1997.
XX
PF   23-JUN-1997;   97WO-CA000440.
XX
PR   21-JUN-1996;   96US-00667546.
PR   01-OCT-1996;   96US-00724466.
XX
PA   (TOOH ) UNIV QUEENS KINGSTON.
XX
PI   Petkovich PM,  White JA,  Beckett BR,  Jones G;
XX
DR   WPI; 1998-077178/07.
XX
PT   Retinoid metabolising protein - useful to develop products to treat, e.g.
PT   cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
PT   ichthyosis.
XX
PS   Disclosure; Page 14; 110pp; English.
XX
CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
CC   transcription reactions on polyA+ RNA isolated from the fins of control
CC   or retinoic acid-treated zebrafish (Danio rerio). Several combinations of
CC   the polyT primers were used with degenerate upstream primers (see
CC   AAV12229-33) for differential display PCR. Bands demonstrating
CC   reproducible differential amplifications were found using the primers
CC   given in AAV12221 and AAV12231. This PCR product was reamplified (see
CC   AAV12234-35). A differential display product (see AAV12213) which
CC   exhibited a dependence on the presence of retinoic acid for its
CC   expression was isolated, and was used to isolate a full-length clone (see
CC   AAV12203) coding for a novel retinoid metabolising protein (see
CC   AAW44159), designated zP450RAI
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTCA 14


RESULT 5400
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```
AAT99552
ID   AAT99552 standard; DNA; 14 BP.
XX
AC   AAT99552;
XX
DT   08-JUN-1998  (first entry)
XX
DE   Oligo-dT primer used in epoxide hydrolase mEH gene RT-PCR.
XX
KW   Cell growth regulatory gene; mEH; microsomal epoxide hydrolase; rat;
KW   tumour; cancer; diagnosis; gene therapy; RT-PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9745542-A2.
XX
PD   04-DEC-1997.
XX
PF   29-MAY-1997;   97WO-US009584.
XX
PR   29-MAY-1996;   96US-0018557P.
XX
PA   (PHAR-) PHARMAGENICS INC.
XX
PI   Beaudry GA,  Bertelsen AH,  Galella E,  Madden SI;
XX
DR   WPI; 1998-032649/03.
XX
PT   DNA encoding mammalian growth response protein CGR11 or CGR19 - useful to
PT   suppress or diagnose cancer, also similar use of SM20 or mEH protein.
XX
PS   Example 2; Page 16; 46pp; English.
XX
CC   This oligo-dT primer was used with a random 10-mer primer (see AAT99553)
CC   in an RT-PCR amplification of rat embryo fibroblast REF-112 cell RNA.
CC   This was performed in order to identifying p53 regulated genes. One
CC   transcript that was upregulated specifically in cells harboring wild-type
CC   p53 protein was characterised. A previously known gene, mEH (microsomal
CC   epoxide hydrolase), was identified. 2 Novel cell growth regulatory genes,
CC   CGR11 (see AAV04008) and CGR19 (see AAV04010), were also isolated. These
CC   genes and the novel CGR11 and CGR19 growth regulatory proteins (see
CC   AAW38423 and AAW38425) can be used in methods for the diagnosis and
CC   treatment of cancer
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTTCA 14


RESULT 5401
AAX02696
ID   AAX02696 standard; DNA; 14 BP.
XX
AC   AAX02696;
XX
DT   10-MAY-1999  (first entry)
XX
DE   Barley HPPD primer #2.
XX
KW   HPPD; barley; hydroxyphenylpyruvate dioxygenase; plant; transformation;
KW   transgenic; plant cell; callus tissue, protoplast; electroporation;
KW   particle bombardment; soya; barley; wheat; oilseed rape; maize; primer;
KW   sunflower; tobacco; ss.
XX
OS   Hordeum vulgare.
XX
PN   DE19730066-A1.
XX
PD   21-JAN-1999.
XX
PF   14-JUL-1997;   97DE-01030066.
XX
PR   14-JUL-1997;   97DE-01030066.
XX
PA   (BADI ) BASF AG.
XX
PI   Seulberger H,  Lerchl J,  Schmidt R,  Kurpinska K,  Falk J;
XX
DR   WPI; 1999-096742/09.
XX
PT   DNA encoding barley hydroxyphenylpyruvate dioxygenase - for producing
PT   plants with increased vitamin E content, etc.
XX
PS   Example 1; Page 9; 26pp; German.
XX
CC   AAX02695-X02708 are primers used in the isolation of a novel barley
CC   (Hordeum vulgare) hydroxyphenylpyruvate dioxygenase (HPPD) protein. This
CC   protein is useful for plant transformation to produce transgenic plants
CC   especially where an expression cassette is introduced into a plant cell,
CC   callus tissue, a whole plant or protoplasts by Agrobacterium tumefaciens
CC   transformation, electroporation or particle bombardment and where the
CC   plants are selected from soya, barley, wheat, oilseed rape, maize and
CC   sunflower, or where the DNA is expressed in tobacco plants, especially in
CC   leaves or seeds
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTTCA 14


RESULT 5402
AAX19465/c
ID   AAX19465 standard; DNA; 14 BP.
XX
AC   AAX19465;
XX
DT   21-MAY-1999  (first entry)
XX
DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:7.
XX
KW   Human; senescence factor; p23; cancer; persistent inflammation;
KW   proliferative disorder; degenerative disorder; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9907893-A1.
XX
PD   18-FEB-1999.
XX
PF   05-AUG-1998;   98WO-US016343.
XX
PR   08-AUG-1997;   97US-00908873.
XX
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Swisshelm K,  Hosier S,  Kubbies M;
XX
DR   WPI; 1999-167454/14.
XX
PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
PT   polypeptide - useful for inducing a senescence phenotype in a cell.
XX
PS   Example 1; Page 18; 44pp; English.
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XX
CC   The present invention describes human senescence factor p23. An
CC   expression vector for p23 is useful for inducing a senescent phenotype in
CC   a cell (preferably eukaryotic). This may help in regulating diseases,
CC   including cancer, persistent inflammation, and various proliferative and
CC   degenerative disorders. These transgenic cells are useful in gene therapy
CC   for treating cancer, particularly where antisense oligonucleotides are
CC   useful for blocking normal or mutant p23 expression in cancer cells or
CC   other proliferating cells. Transgenic cells are also useful for producing
CC   the p23 polypeptide in large quantities. The antibodies are useful for
CC   raising antiserum against p23, and for identifying senescent cells in
CC   culture and tissue biopsies. The p23 polynucleotides are useful for
CC   modulating or altering p23 activity in a cell, and for identifying and
CC   isolating the whole gene encoding p23, and variants of p23. Assays based
CC   on p23 elements, which detect p23 levels and activity are useful as
CC   diagnostic markers for staging tumours, determining prognosis, and/or
CC   predicting therapeutic success. These elements also provide an assay for
CC   detecting chromosomal rearrangements in chromosome 3 in a human cell. The
CC   isolation of the p23 polynucleotide permits the manipulation of malignant
CC   growth in cancer. The present sequence represents a primer used in an
CC   example from the present invention
XX
SQ   Sequence 14 BP; 2 A; 0 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||||
Db         14 TTAAAAAAAAAAAA 1


RESULT 5403
AAX19467
ID   AAX19467 standard; DNA; 14 BP.
XX
AC   AAX19467;
XX
DT   21-MAY-1999  (first entry)
XX
DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:9.
XX
KW   Human; senescence factor; p23; cancer; persistent inflammation;
KW   proliferative disorder; degenerative disorder; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9907893-A1.
XX
PD   18-FEB-1999.
XX
PF   05-AUG-1998;   98WO-US016343.
XX
PR   08-AUG-1997;   97US-00908873.
XX
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Swisshelm K,  Hosier S,  Kubbies M;
XX
DR   WPI; 1999-167454/14.
XX
PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
PT   polypeptide - useful for inducing a senescence phenotype in a cell.
XX
PS   Example 1; Page 18; 44pp; English.
XX
CC   The present invention describes human senescence factor p23. An
CC   expression vector for p23 is useful for inducing a senescent phenotype in
CC   a cell (preferably eukaryotic). This may help in regulating diseases,
CC   including cancer, persistent inflammation, and various proliferative and
CC   degenerative disorders. These transgenic cells are useful in gene therapy
CC   for treating cancer, particularly where antisense oligonucleotides are
CC   useful for blocking normal or mutant p23 expression in cancer cells or
CC   other proliferating cells. Transgenic cells are also useful for producing
CC   the p23 polypeptide in large quantities. The antibodies are useful for
CC   raising antiserum against p23, and for identifying senescent cells in
CC   culture and tissue biopsies. The p23 polynucleotides are useful for
CC   modulating or altering p23 activity in a cell, and for identifying and
CC   isolating the whole gene encoding p23, and variants of p23. Assays based
CC   on p23 elements, which detect p23 levels and activity are useful as
CC   diagnostic markers for staging tumours, determining prognosis, and/or
CC   predicting therapeutic success. These elements also provide an assay for
CC   detecting chromosomal rearrangements in chromosome 3 in a human cell. The
CC   isolation of the p23 polynucleotide permits the manipulation of malignant
CC   growth in cancer. The present sequence represents a primer used in an
CC   example from the present invention
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTTCA 14


RESULT 5404
ABL88471/c
ID   ABL88471 standard; DNA; 14 BP.
XX
AC   ABL88471;
XX
DT   16-MAY-2002  (first entry)
XX
DE   Oligo dT 3P1 primer 1.
XX
KW   Pain; analgesic; gene therapy; neurological disorder;
KW   neurodegenerative disease; primer; ss.
XX
OS   Synthetic.
XX
PN   WO200212338-A2.
XX
PD   14-FEB-2002.
XX
PF   03-AUG-2001; 2001WO-EP009011.
XX
PR   03-AUG-2000; 2000DE-01037759.
XX
PA   (CHEF ) GRUENENTHAL GMBH.
XX
PI   Gillen C,  Wetzels I,  Wnendt S,  Weihe E,  Schaefer MK;
XX
DR   WPI; 2002-257469/30.
XX
PT   Identifying pain-regulating compounds, useful for treating chronic pain
PT   and for diagnosis, by measuring binding of compounds to specific peptides
PT   and proteins.
XX
PS   Example 1; Page 62; 213pp; German.
XX
CC   The invention relates to identifying pain-regulating substances (A)
CC   comprises (i) incubating a test substance with a cell (or preparation
CC   from it) that has synthesised a peptide or protein (B) and (ii) measuring
CC   either binding of the test substance to (B) or some functional parameter
CC   that is altered by this binding. The method is useful for identifying
CC   pain-regulating substances (A) with analgesic activity. (A) along with
CC   nucleic acid (ABL88411-ABL88441) that encode proteins (B, ABB85006-
CC   ABB85037) that interact with (A); (B); vectors containing the nucleic
CC   acid; antibodies against (B); cells that express (B) and agents that bind
CC   to (B), are all useful for treating pain, particularly chronic pain,
CC   including use in gene therapy. The same materials can also be used for
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CC   diagnosis, e.g. of neurological and neurodegenerative diseases. The
CC   present sequence is that of a PCR primer, used in examples of the
CC   invention
XX
SQ   Sequence 14 BP; 2 A; 0 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||||
Db         14 TTAAAAAAAAAAAA 1


RESULT 5405
AAD24496
ID   AAD24496 standard; DNA; 14 BP.
XX
AC   AAD24496;
XX
DT   07-MAR-2002  (first entry)
XX
DE   Retinoid-regulated gene isolating poly(T) PCR primer #10.
XX
KW   Retinoid metabolism; retinoic acid; RA; haeme-binding motif; vitamin A;
KW   cytochrome P450; prostate cancer; drug screening; PCR primer;
KW   retinoid-regulated gene; ss.
XX
OS   Unidentified.
XX
PN   US6306624-B1.
XX
PD   23-OCT-2001.
XX
PF   25-JUN-1997;   97US-00882164.
XX
PR   21-JUN-1996;   96US-00667546.
PR   01-OCT-1996;   96US-00724466.
PR   23-JUN-1997;   97WO-CA000440.
XX
PA   (TOOH ) UNIV QUEENS KINGSTON.
XX
PI   Petkovich PM,  White JA,  Beckett BR,  Jones G;
XX
DR   WPI; 2002-033254/04.
XX
PT   New DNA fragments having promoter activity, useful in retinoid
PT   metabolism, as well as in producing retinoic acid metabolizing cytochrome
PT   P450s that are useful as targets for the treatment of certain cancers.
XX
PS   Disclosure; Col 13; 75pp; English.
XX
CC   The present invention relates to retinoid (e.g., retinoic acid (RA),
CC   vitamin A) metabolising proteins and nucleic acid sequences encoding
CC   them. RA metabolising proteins contain a haeme-binding motif which is
CC   characteristic of the group of proteins known as cytochrome P450s. The
CC   sequences of the invention are useful in retinoid metabolism and in
CC   producing retinoic acid metabolising cytochrome P450s. They are
CC   particularly useful as targets for the treatment of certain cancers such
CC   as prostate cancer. The invention also relates to a method of screening
CC   drugs for their effect on activity of RA inducible proteins. The present
CC   DNA sequence is poly(T) PCR primer which is used for isolating retinoid
CC   regulating genes by differential display of mRNAs
XX
SQ   Sequence 14 BP; 1 A; 1 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTA 2187
              ||||||||||||| |
Db          1 TTTTTTTTTTTCA 14


RESULT 5406
AAD24492/c
ID   AAD24492 standard; DNA; 14 BP.
XX
AC   AAD24492;
XX
DT   07-MAR-2002  (first entry)
XX
DE   Retinoid-regulated gene isolating poly(T) PCR primer #6.
XX
KW   Retinoid metabolism; retinoic acid; RA; haeme-binding motif; vitamin A;
KW   cytochrome P450; prostate cancer; drug screening; PCR primer;
KW   retinoid-regulated gene; ss.
XX
OS   Unidentified.
XX
PN   US6306624-B1.
XX
PD   23-OCT-2001.
XX
PF   25-JUN-1997;   97US-00882164.
XX
PR   21-JUN-1996;   96US-00667546.
PR   01-OCT-1996;   96US-00724466.
PR   23-JUN-1997;   97WO-CA000440.
XX
PA   (TOOH ) UNIV QUEENS KINGSTON.
XX
PI   Petkovich PM,  White JA,  Beckett BR,  Jones G;
XX
DR   WPI; 2002-033254/04.
XX
PT   New DNA fragments having promoter activity, useful in retinoid
PT   metabolism, as well as in producing retinoic acid metabolizing cytochrome
PT   P450s that are useful as targets for the treatment of certain cancers.
XX
PS   Disclosure; Col 13; 75pp; English.
XX
CC   The present invention relates to retinoid (e.g., retinoic acid (RA),
CC   vitamin A) metabolising proteins and nucleic acid sequences encoding
CC   them. RA metabolising proteins contain a haeme-binding motif which is
CC   characteristic of the group of proteins known as cytochrome P450s. The
CC   sequences of the invention are useful in retinoid metabolism and in
CC   producing retinoic acid metabolising cytochrome P450s. They are
CC   particularly useful as targets for the treatment of certain cancers such
CC   as prostate cancer. The invention also relates to a method of screening
CC   drugs for their effect on activity of RA inducible proteins. The present
CC   DNA sequence is poly(T) PCR primer which is used for isolating retinoid
CC   regulating genes by differential display of mRNAs
XX
SQ   Sequence 14 BP; 2 A; 0 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 3.6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||||
Db         14 TTAAAAAAAAAAAA 1


RESULT 5407
AAT52144
ID   AAT52144 standard; RNA; 15 BP.
XX
AC   AAT52144;
XX
DT   25-MAR-2003  (revised)
DT   25-MAR-1997  (first entry)
XX
```

DE Human ICAM hammerhead ribozyme target sequence (nt. position 2914).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome; AIDS;
KW ss.
XX
OS Homo sapiens.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB000156.
XX
PR 23-FEB-1994; 94US-00201109.
PR 29-MAR-1994; 94US-00218934.
PR 04-APR-1994; 94US-00222795.
PR 07-APR-1994; 94US-00224483.
PR 15-APR-1994; 94US-00227958.
PR 15-APR-1994; 94US-00228041.
PR 18-MAY-1994; 94US-00245736.
PR 06-JUL-1994; 94US-00271280.
PR 15-AUG-1994; 94US-00291932.
PR 16-AUG-1994; 94US-00291433.
PR 17-AUG-1994; 94US-00292620.
PR 19-AUG-1994; 94US-00293520.
PR 02-SEP-1994; 94US-00300000.
PR 08-SEP-1994; 94US-00303039.
PR 23-SEP-1994; 94US-00311486.
PR 23-SEP-1994; 94US-00311749.
PR 28-SEP-1994; 94US-00314397.
PR 03-OCT-1994; 94US-00316771.
PR 07-OCT-1994; 94US-00319492.
PR 11-OCT-1994; 94US-00321993.
PR 04-NOV-1994; 94US-00334847.
PR 10-NOV-1994; 94US-00337608.
PR 28-NOV-1994; 94US-00345516.
PR 16-DEC-1994; 94US-00357577.
PR 23-DEC-1994; 94US-00363233.
PR 30-JAN-1995; 95US-00380734.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-Adamic J, Mcswiggen JA;
PI Modak A, Pavco P, Beigleman L, Sullivan SM, Sweedler D, Thompson JD;
PI Tracz D, Usman N, Wincott FE, Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them - for use
PT in inhibiting disease related genes.
XX
PS Claim 2; Page 175; 407pp; English.
XX
CC The present sequence represents a preferred target sequence for an
CC enzymatic nucleic acid (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the
CC nucleotide base position indicated in the DE line. Regions of the mRNA
CC that do not form secondary folding structures and that contain potential
CC hammerhead and hairpin ribozyme cleavage sites were identified by
CC computer analysis. Ribozymes directed against these mRNA sequences were
CC designed and synthesised with modifications that improve their nuclease
CC resistance. The ribozymes cleave the ICAM-1 target sequences and thereby
CC inhibit ICAM-1 expression, making them useful for reducing transplant
CC rejection and alleviating symptoms in patients with rheumatoid arthritis,
CC asthma and other inflammatory disorders. (Updated on 25-MAR-2003 to
CC correct PI field.)
XX
SQ Sequence 15 BP; 1 A; 1 C; 1 G; 0 T; 12 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 15;
Best Local Similarity 7.1%; Pred. No. 4.1e+03;
Matches 1; Conservative 12; Mismatches 1; Indels 0; Gaps 0;

Qy 2174 TTTTTTTTTTTTA 2187
:::::::::::: |
Db 1 UUUUUUUUUUUCA 14

RESULT 5408
AAX69796/c
ID AAX69796 standard; RNA; 17 BP.
XX
AC AAX69796;
XX
DT 28-JUL-1999 (first entry)
XX
DE Human flt1 VEGF receptor hammerhead ribozyme substrate #1091.
XX
KW Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW foetal liver kinase 1; ss.
XX
OS Homo sapiens.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 79; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 1 A; 2 C; 0 G; 0 T; 14 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 17;
Best Local Similarity 92.9%; Pred. No. 5e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1979 AAAAAAAGAAAAGT 1992
||||||| ||||||

```
Db         17 AAAAAAAAAAAAGT 4


RESULT 5409
AAF03223/c
ID   AAF03223 standard; DNA; 17 BP.
XX
AC   AAF03223;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1518.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 37; Page 90; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 4 A; 0 C; 1 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 5e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||||
Db         17 TTCAAAAAAAAAAA 4


RESULT 5410
ABQ99687
ID   ABQ99687 standard; DNA; 17 BP.
XX
AC   ABQ99687;
XX
DT   08-NOV-2002  (first entry)
XX
DE   Murine Ikbkap exon 27 acceptor site.
XX
KW   Murine; IKBKAP; Familial Dysautonomia; FD; Riley-Day syndrome; ds;
KW   Hereditary Sensory and Autonomic Neuropathy Type III; carrier screening.
XX
OS   Mus sp.
XX
PN   WO200259381-A2.
XX
PD   01-AUG-2002.
XX
PF   07-JAN-2002; 2002WO-US000473.
XX
PR   06-JAN-2001; 2001US-0260080P.
XX
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Slaugenhaupt S,  Gusella JF;
XX
DR   WPI; 2002-674806/72.
XX
PT   New IKBKAP genes with mutations, useful for identifying a subject with
PT   familial dysautonomia (FD), or for rapid carrier screening in the
PT   Ashkenazi Jewish population, e.g. screening presymptomatic homozygotes or
PT   prenatal diagnosis.
XX
PS   Disclosure; Fig 11; 109pp; English.
XX
CC   The present invention relates to methods and compositions useful for
CC   detecting mutations which cause Familial Dysautonomia (FD, Riley-Day
CC   syndrome, Hereditary Sensory and Autonomic Neuropathy Type III) [OMIM
CC   223900]. It was found that mutations in the IKBKAP gene (see ABQ80565)
CC   are associated with FD. The mutation associated with the major haplotype
CC   of FD, FD1 mutation, is a base pair (bp) mutation, where the thymine
CC   nucleotide located at bp 6 of intron 20 in the IKBKAP gene is replaced
CC   with a cytosine. This results in skipping of exon 20 in the mRNA from FD
CC   patients, although they continue to express varying levels of wild-type
CC   message in a tissue-specific manner. The mutation associated with the
CC   minor haplotype, FD2 mutation, is a bp mutation, where the guanine
CC   nucleotide at bp 2397 (bp 73 of exon 19) is replaced with a cytosine.
CC   This bp mutation causes an arginine to proline missense mutation (R696P)
CC   in the IKBKAP protein, which is predicted to disrupt a potential
CC   phosphorylation site. The IKBKAP nucleic acid sequences are useful for
CC   identifying a subject with FD and for rapid carrier screening. The IKBKAP
CC   gene maps to chromosome 9q31. A mouse model of FD was created in an
CC   example from the invention. Expression of murine Ikbkap was examined
CC   using both mouse embryo and adult mouse multiple tissue Northern blots.
CC   The blots were probes with a 1045bp PCR fragent that contains exons 2
CC   thrcugh 11, which was generated using PCR primers ABQ80563-ABQ80564.
CC   ABQ99662-ABQ99733 are the murine Ikbkap exon and intron boundaries
XX
SQ   Sequence 17 BP; 2 A; 1 C; 2 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 5e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTA 2187
              ||||||||||||
Db          1 TTTTTTTTTTTCA 14


RESULT 5411
AAF56305
ID   AAF56305 standard; DNA; 18 BP.
XX
AC   AAF56305;
XX
DT   19-APR-2001  (first entry)
XX
DE   Human mGluR1alpha GB-PR1:HSU31215 antisense oligonucleotide #6.
XX
KW   Antisense; metabotropic glutamate receptor type 1; mGluR1; pain;
KW   inflammation; arthritis; opioid analgesic; glutamate; neurotoxicity;
KW   tumour; human; ss.
XX
OS   Homo sapiens.
XX
PN   WO200105963-A2.
XX
```

```
PD   25-JAN-2001.
XX
PF   17-JUL-2000; 2000WO-CA000824.
XX
PR   15-JUL-1999;   99US-0144004P.
XX
PA   (UYMC-) UNIV MCGILL.
XX
PI   Fundytus ME,  Coderre TJ,  Cohen SR,  Henry JL,  Vainio A;
XX
DR   WPI; 2001-159534/16.
XX
PT   New antisense oligonucleotides to metabotropic glutamate receptor type 1
PT   gene, which specifically hybridize to mRNA expressed from the gene useful
PT   for treating disorders related to elevated glutamate level such as pain.
XX
PS   Claim 2; Page 18; 97pp; English.
XX
CC   The present invention relates to an antisense oligonucleotide derived
CC   from the sequence of metabotropic glutamate receptor type 1 (mGluR1)
CC   gene. The antisense oligonucleotide binds to a portion of mRNA expressed
CC   from the gene or its splice variant. The binding of the oligonucleotide
CC   to the mRNA is effective in decreasing the translation of the mRNA in a
CC   host cell expressing the gene. The oligonucleotides are useful for
CC   treating chronic pain caused by injury or inflammation of a nerve caused
CC   by arthritis. The oligonucleotides may be used with an opioid analgesic.
CC   They are also useful for minimizing glutamate neurotoxicity and/or
CC   excitotoxicity associated with stroke, ischemia, CNS trauma,
CC   neurodegenerative disorders, gastrointestinal disorders or to inhibit
CC   tumour formation
XX
SQ   Sequence 18 BP; 13 A; 1 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 18;
  Best Local Similarity   92.9%;  Pred. No. 5.4e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAA 2798
              ||||||||| ||||
Db          1 GAAAAAAAACAAAA 14


RESULT 5412
ABA02214
ID   ABA02214 standard; DNA; 20 BP.
XX
AC   ABA02214;
XX
DT   12-FEB-2002  (first entry)
XX
DE   Human/mouse C/EBP phosphorothioate antisense oligonucleotide, SEQ ID:26.
XX
KW   Human; C/EBP alpha; CCAAT/enhancer-binding protein alpha; CEBPA;
KW   transcription factor; tissue development; cellular function;
KW   proliferation; differentiation; adipocyte; energy metabolism;
KW   chondrogenic; ovulation; follicular development;
KW   hepatic steroid-induced cell cycle arrest; GLUT2 promoter regulation;
KW   hormonal metabolic regulation; granulocyte development; cancer;
KW   tumour formation; infection; inflammation; expression inhibition;
KW   antisense therapy; quantitative real-time PCR primer; ss.
XX
OS   Homo sapiens.
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate linkages"
FT   modified_base   1. .5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
FT   modified_base   16. .20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
FT                   cytosines are 5-methylcytosine"
XX
PN   US6306655-B1.
XX
PD   23-OCT-2001.
XX
PF   13-JUN-2000; 2000US-00593589.
XX
PR   13-JUN-2000; 2000US-00593589.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Butler MM,  Wyatt J;
XX
DR   WPI; 2002-040202/05.
XX
PT   New antisense oligonucleotides for modulating the expression of
PT   CCAAT/Enhancer-binding proteins alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 42; 44pp; English.
XX
CC   Sequences ABA02205-ABA02282 represent antisense oligonucleotides targeted
CC   to the human CCAAT/enhancer-binding protein alpha (C/EBP alpha) gene,
CC   which inhibit its expression. The antisense oligonucleotides were
CC   designed to target different regions of the human C/EBP alpha RNA, and
CC   were analysed for their effect on C/EBP alpha mRNA levels by quantitative
CC   real-time PCR. A similar investigation on mouse C/EBP alpha expression
CC   was performed using a subset of the antisense oligonucleotides that were
CC   capable of hybridising to mouse C/EBP alpha mRNA. The C/EBP family of
CC   proteins are a family of transcription factors which regulate the
CC   expression of wide range of genes that control normal tissue development,
CC   cellular function, cellular proliferation and functional differentiation.
CC   C/EBP alpha (also known as CEBPA) is primarily found in tissues involved
CC   in energy metabolism which have a capacity to metabolise lipids,
CC   cholesterol and other sterols. It is thought to be involved in the
CC   regulation of adipocyte and chondrogenic differentation, and is also
CC   involved in follicular development and ovulation, steroid-induced cell
CC   cycle arrest in the liver, in controlling glucose transporter GLUT2
CC   promoter activity, in the hormonal regulation of metabolism, and in
CC   granulocyte development. The oligonucleotides of the invention are useful
CC   for diagnosis, prevention and treatment of conditions associated with
CC   C/EBP expression, such as cancer, tumour formation, infection, or
CC   inflammation
XX
SQ   Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 20;
  Best Local Similarity   92.9%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        378 AGTCGGCCGACCCC 391
              |||||||||||| ||
Db          7 AGTCGGCCGACTCC 20


RESULT 5413
ABZ86522
ID   ABZ86522 standard; DNA; 20 BP.
XX
AC   ABZ86522;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
```

```
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Claim 15; SEQ ID NO 1764; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 15 A; 1 C; 3 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 20;
  Best Local Similarity   92.9%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1977 TGAAAAAAAGAAAA 1990
              ||||| ||||||||
Db          6 TGAAACAAAGAAAA 19


RESULT 5414
ABQ84589/c
ID   ABQ84589 standard; DNA; 20 BP.
XX
AC   ABQ84589;
XX
DT   20-FEB-2003  (first entry)
XX
DE   DPP10 related PSQ assay oligonucleotide #74.
XX
KW   DPP10; dipeptidyl peptidase; prolyloligopeptidase; enzyme; asthma;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antiarthritic;
KW   antirheumatic; vaccine; gene therapy; inflammatory disease;
KW   inflammatory bowel disease; atopy; rheumatoid arthritis; psoriasis;
KW   chromosome 2q14; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200286113-A2.
XX
PD   31-OCT-2002.
XX
PF   24-APR-2002; 2002WO-GB001887.
XX
PR   24-APR-2001; 2001GB-00010044.
PR   24-APR-2001; 2001GB-00010046.
PR   12-OCT-2001; 2001GB-00024575.
PR   12-OCT-2001; 2001GB-00024594.
XX
PA   (ISIS-) ISIS INNOVATIONS LTD.
XX
PI   Cookson WOCM,  Moffat MF,  Allen M,  Lench N;
XX
DR   WPI; 2003-093132/08.
XX
PT   New nucleic acid sequence comprising DPP10 mRNA, useful for the
PT   manufacture of a medicament for regulating DPP10 protein expression or
PT   for preventing or treating inflammatory disease e.g., inflammatory bowel
PT   disease.
XX
PS   Disclosure; Page 321; 321pp; English.
XX
CC   The present invention describes a new isolated nucleic acid sequence (I)
CC   comprising a DPP10 mRNA sequence. DPP10 is a dipeptidyl peptidase (also
CC   known as prolyloligopeptidase). (I) has antiinflammatory, antiasthmatic,
CC   antipsoriatic, antiarthritic and antirheumatic activities, and can be
CC   used in vaccines and gene therapy. A composition comprising (I) can be
CC   used for the manufacture of a medicament for regulating DPP10 expression
CC   or for preventing or treating inflammatory disease e.g., inflammatory
CC   bowel disease, asthma, atopy, rheumatoid arthritis or psoriasis. (I) can
CC   also be used in an assay for detecting or measuring DPP10 in a sample. A
CC   host cell comprising (I) can be used for producing recombinant DPP10 gene
CC   products, or in drug screening systems to identify agents for diagnosis
CC   or treatment of individuals having or susceptible to inflammatory
CC   disease. Human DPP10 is located on chromosome 2, more specifically
CC   chromosome 2q14. ABQ84254 to ABQ84612 and ABP55569 to ABP55629 represent
CC   sequences used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 9 A; 2 C; 2 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 20;
  Best Local Similarity   92.9%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2414 GGTCTGTAAATACT 2427
              ||||| ||||||||
Db         20 GGTCTTTAAATACT 7


RESULT 5415
AAZ26823/c
ID   AAZ26823 standard; DNA; 21 BP.
XX
AC   AAZ26823;
XX
DT   30-NOV-1999  (first entry)
XX
DE   Human polymorphic region 1012.
XX
KW   Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW   cell viability; loss of heterozygosity; precancerous condition; ASI;
KW   allele specific inhibitor; somatic cell; diagnosis; prevention;
KW   atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW   dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
```

KW graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS Homo sapiens.
XX
PN WO9841648-A2.
XX
PD 24-SEP-1998.
XX
PF 19-MAR-1998; 98WO-US005419.
XX
PR 20-MAR-1997; 97US-0041057P.
XX
PA (VARI-) VARIAGENICS INC.
XX
PI Housman D, Ledley FD, Stanton VP;
XX
DR WPI; 1998-521232/44.
XX
PT Identifying target genes for allele-specific drugs - used for diagnosis,
PT prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT dysplastic lesions, endometriosis or graft versus host disease.
XX
PS Disclosure; Fig 7; 605pp; English.
XX
CC This invention describes a novel method for identifying an inhibitor
CC potentially useful for treatment of cancer, where the inhibitor is active
CC on a gene vital for cell growth or viability, and where the gene is
CC subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC used for preventing the development of cancer in a patient having a
CC precancerous condition, by administering to the patient a first allele
CC specific inhibitor (ASI) targeted to an allele of a first essential gene
CC present in cells of the precancerous condition, where the normal somatic
CC cells of the patient are heterozygous for the first gene, the inhibitor
CC is active on at least one but less than all allelic forms of the gene
CC present in a population and targets only one allelic form present in the
CC normal somatic cells, and the first gene. The products and methods can be
CC used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC graft versus host disease. The method can also be used to remove
CC malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC human polymorphic sites described in the method of the invention
XX
SQ Sequence 21 BP; 9 A; 0 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 21;
Best Local Similarity 92.9%; Pred. No. 6e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       2783 TTGAAAAAAAAAAA 2796
              || ||||||||||
Db         14 TTTAAAAAAAAAAA 1
```

RESULT 5416
AAT14900/c
ID AAT14900 standard; cDNA to mRNA; 21 BP.
XX
AC AAT14900;
XX
DT 18-JUL-1996 (first entry)
XX
DE Primer 6 for 3' porcine zona pellucida gene amplification.
XX
KW PZP-3; porcine zona pellucida 3; contraceptive vaccine; antigen;
KW PZP-3(258); primer; PCR; polymerase chain reaction; ss.
XX
OS Synthetic.
XX
PN JP06179698-A.
XX
PD 28-JUN-1994.
XX
PF 15-DEC-1992; 92JP-00353992.
XX
PR 15-DEC-1992; 92JP-00353992.
XX
PA (TOFU) TONEN CORP.
XX
DR WPI; 1994-245693/30.
XX
PT Pig zona pellucida-3 related peptide(s) - useful as contraceptive vaccine
PT antigen.
XX
PS Example 1; Page 6; 14pp; Japanese.
XX
CC AAT14897-99 were each used with AAT14900 to PCR amplify DNA 3' of the
CC recombinant PZP-3(258) partial porcine zona pellucida 3 gene. A 300 bp
CC PCR product (AAT14901) was generated by all 3 PCR reactions. The
CC recombinant protein, PZP-3(258) (AAR96951) corresponds to residues 106-
CC 363 of PZP-3. Peptides wholly or partially related to PZP-3 (AAR96950),
CC partic. between amino acids 106-363 (see AAR96951), are useful as
CC contraceptive vaccine antigens for pigs. See AAT14895-908
XX
SQ Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 21;
Best Local Similarity 92.9%; Pred. No. 6e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1979 AAAAAAAGAAAAGT 1992
              ||||||| ||||||
Db         21 AAAAAAAAAAAAGT 8
```

RESULT 5417
AAQ56046/c
ID AAQ56046 standard; DNA; 21 BP.
XX
AC AAQ56046;
XX
DT 09-SEP-1994 (first entry)
XX
DE Primer 5 to isolate feline zona pellucida FZP-3 coding sequence.
XX
KW Cat; feline zona pellucida; FZP-3; antigen; contraceptive vaccine; PCR;
KW polymerase chain reaction; primer; ss.
XX
OS Synthetic.
XX
PN JP06014784-A.
XX
PD 25-JAN-1994.
XX
PF 27-NOV-1992; 92JP-00341429.
XX
PR 29-NOV-1991; 91JP-00342317.
XX
PA (TOFU) TONEN CORP.
XX
DR WPI; 1994-061479/08.
XX
PT DNA encoding cat zona pellucida FZP-3 - useful as antigen in
PT contraceptive vaccine and for sterilisation.
XX
PS Example 1; Page 6; 19pp; Japanese.
XX
CC The feline zona pellucida protein can be used as an antigen in the
CC preparation of contraceptive vaccines for cats. Primers 1-8 (see AAQ56042
CC -Q56049) were used to amplify cDNA coding for the FZP-3 protein
XX
SQ Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 21;
Best Local Similarity 92.9%; Pred. No. 6e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1979 AAAAAAAGAAAAGT 1992
              ||||||| ||||||
Db         21 AAAAAAAAAAAAGT 8


RESULT 5418
AAQ70078/c
ID   AAQ70078 standard; DNA; 21 BP.
XX
AC   AAQ70078;
XX
DT   15-MAR-1995  (first entry)
XX
DE   CZP2(487-713) primer 6.
XX
KW   Canine; dog; zona pellucida; ZP; CZP2; contraceptive; vaccine; antigen;
KW   ss.
XX
OS   Synthetic.
XX
PN   JP06189766-A.
XX
PD   12-JUL-1994.
XX
PF   25-DEC-1992;   92JP-00359265.
XX
PR   25-DEC-1992;   92JP-00359265.
XX
PA   (TOFU ) TONEN CORP.
XX
DR   WPI; 1994-259553/32.
XX
PT   New DNA sequence encoding canine zona pellucida CZP2 - useful for the
PT   prodn. of a canine contraceptive vaccine antigen.
XX
PS   Disclosure; Page 5; 10pp; Japanese.
XX
CC   The CZP2 DNA (AAQ70072) was prepd. by the cloning of CZP2(75-520) -
CC   AAQ81700 using the primers given in AAQ70073-74, CZP2(1-65) - AAQ81804
CC   using the primers given in AAQ70082-83, CZP2(42-103) - AAQ81803 using the
CC   primers given in AAQ70079-81 and CZP2(487-713) - AAQ81957 using the
CC   primers given in AAQ70075-78
XX
SQ   Sequence 21 BP; 3 A; 3 C; 2 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 21;
  Best Local Similarity   92.9%;  Pred. No. 6e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGT 1992
              ||||||| ||||||
Db         21 AAAAAAAAAAAAGT 8


RESULT 5419
AAT28050/c
ID   AAT28050 standard; DNA; 22 BP.
XX
AC   AAT28050;
XX
DT   31-DEC-1996  (first entry)
XX
DE   3'-primer G for human fibroblasts.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW   enhanced differential display; EDD; mRNA preparation; senescent cell;
KW   quiescent cell; dividing cell; senescence-related gene; gene expression;
KW   non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW   donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS   Synthetic.
XX
PN   WO9613610-A2.
XX
PD   09-MAY-1996.
XX
PF   24-AUG-1995;   95WO-US011230.
XX
PR   31-OCT-1994;   94US-00332420.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Hirsch KS,  Villeponteau B,  Feng J,  Funk W,  West MD;
XX
DR   WPI; 1996-251464/25.
XX
PT   Identifying, isolating and regulating senescence-related genes - useful
PT   to ameliorate problems associated with accumulation of senescent cells,
PT   e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS   Claim 6; Page 25; 135pp; English.
XX
CC   AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC   differential display (EDD), which is used in conjuncture with the method
CC   of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC   represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC   5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC   complementary to the poly-A tail of the mRNA. In the method of the
CC   invention, mRNA is isolated from a senescent cell, and a young quiescent
CC   cell, and the mRNAs are amplified in separate reaction mixtures. The
CC   amplified sequences are then separated by size or charge, and the
CC   products are analysed to identify a gene from young quiescent cells and
CC   dividing cells, that is present at a different level from senescent
CC   cells. The method can be used for the rapid and efficient identification
CC   and isolation of senescence-related genes and gene products, and to
CC   detect and distinguish between senescent and non-senescent cells. It can
CC   also be used to destroy cells expressing senescence specific (or related)
CC   gene products, and to screen for compounds capable of altering gene
CC   expression in senescent cells. The method can also be used to ameliorate
CC   problems associated with the accumulation of senescent cells such as age-
CC   related lipofuscin accumulation in the retina, and in the treatment of
CC   AIDS. Also, the method can be used to distinguish young cells from
CC   senescent cells in donor tissue, which is useful in removing senescent
CC   melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC   spots
XX
SQ   Sequence 22 BP; 3 A; 3 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ATAAAAAAAAAAAA 9


RESULT 5420
AAT28051/c
ID   AAT28051 standard; DNA; 22 BP.
XX
AC   AAT28051;
XX
DT   31-DEC-1996  (first entry)
XX
DE   3'-primer H for human fibroblasts.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW   enhanced differential display; EDD; mRNA preparation; senescent cell;
KW   quiescent cell; dividing cell; senescence-related gene; gene expression;
KW   non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW   donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS   Synthetic.
XX
```

```
PN   WO9613610-A2.
XX
PD   09-MAY-1996.
XX
PF   24-AUG-1995;   95WO-US011230.
XX
PR   31-OCT-1994;   94US-00332420.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Hirsch KS,  Villeponteau B,  Feng J,  Funk W,  West MD;
XX
DR   WPI; 1996-251464/25.
XX
PT   Identifying, isolating and regulating senescence-related genes - useful
PT   to ameliorate problems associated with accumulation of senescent cells,
PT   e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS   Claim 6; Page 25; 135pp; English.
XX
CC   AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC   differential display (EDD), which is used in conjuncture with the method
CC   of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC   represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC   5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC   complementary to the poly-A tail of the mRNA. In the method of the
CC   invention, mRNA is isolated from a senescent cell, and a young quiescent
CC   cell, and the mRNAs are amplified in separate reaction mixtures. The
CC   amplified sequences are then separated by size or charge, and the
CC   products are analysed to identify a gene from young quiescent cells and
CC   dividing cells, that is present at a different level from senescent
CC   cells. The method can be used for the rapid and efficient identification
CC   and isolation of senescence-related genes and gene products, and to
CC   detect and distinguish between senescent and non-senescent cells. It can
CC   also be used to destroy cells expressing senescence specific (or related)
CC   gene products, and to screen for compounds capable of altering gene
CC   expression in senescent cells. The method can also be used to ameliorate
CC   problems associated with the accumulation of senescent cells such as age-
CC   related lipofuscin accumulation in the retina, and in the treatment of
CC   AIDS. Also, the method can be used to distinguish young cells from
CC   senescent cells in donor tissue, which is useful in removing senescent
CC   melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC   spots
XX
SQ   Sequence 22 BP; 3 A; 4 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
Db         22 GTAAAAAAAAAAAA 9


RESULT 5421
AAT58490/c
ID   AAT58490 standard; DNA; 22 BP.
XX
AC   AAT58490;
XX
DT   24-MAR-1997  (first entry)
XX
DE   First primer #7 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 15; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 3 A; 3 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAA 2799
              | |||||||||||
Db         22 ATAAAAAAAAAAA 9


RESULT 5422
AAT58491/c
ID   AAT58491 standard; DNA; 22 BP.
XX
AC   AAT58491;
XX
DT   24-MAR-1997  (first entry)
XX
DE   First primer #8 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
```

```
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 15; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 3 A; 4 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
Db         22 GTAAAAAAAAAAAA 9


RESULT 5423
AAZ47348/c
ID   AAZ47348 standard; DNA; 22 BP.
XX
AC   AAZ47348;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer G used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 3 A; 3 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ATAAAAAAAAAAAA 9


RESULT 5424
AAZ47349/c
ID   AAZ47349 standard; DNA; 22 BP.
XX
AC   AAZ47349;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer H used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
```

```
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 3 A; 4 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
Db         22 GTAAAAAAAAAAAA 9


RESULT 5425
AAH22191/c
ID   AAH22191 standard; DNA; 22 BP.
XX
AC   AAH22191;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer G.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 3 A; 3 C; 3 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ATAAAAAAAAAAAA 9


RESULT 5426
AAH22192/c
ID   AAH22192 standard; DNA; 22 BP.
XX
AC   AAH22192;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer H.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 3 A; 4 C; 3 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
```

```
Db         22 GTAAAAAAAAAAAA 9


RESULT 5427
AAT28055/c
ID   AAT28055 standard; DNA; 22 BP.
XX
AC   AAT28055;
XX
DT   31-DEC-1996  (first entry)
XX
DE   3'-primer M for human fibroblasts.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW   enhanced differential display; EDD; mRNA preparation; senescent cell;
KW   quiescent cell; dividing cell; senescence-related gene; gene expression;
KW   non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW   donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS   Synthetic.
XX
PN   WO9613610-A2.
XX
PD   09-MAY-1996.
XX
PF   24-AUG-1995;   95WO-US011230.
XX
PR   31-OCT-1994;   94US-00332420.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Hirsch KS,  Villeponteau B,  Feng J,  Funk W,  West MD;
XX
DR   WPI; 1996-251464/25.
XX
PT   Identifying, isolating and regulating senescence-related genes - useful
PT   to ameliorate problems associated with accumulation of senescent cells,
PT   e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS   Claim 6; Page 25; 135pp; English.
XX
CC   AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC   differential display (EDD), which is used in conjuncture with the method
CC   of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC   represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC   5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC   complementary to the poly-A tail of the mRNA. In the method of the
CC   invention, mRNA is isolated from a senescent cell, and a young quiescent
CC   cell, and the mRNAs are amplified in separate reaction mixtures. The
CC   amplified sequences are then separated by size or charge, and the
CC   products are analysed to identify a gene from young quiescent cells and
CC   dividing cells, that is present at a different level from senescent
CC   cells. The method can be used for the rapid and efficient identification
CC   and isolation of senescence-related genes and gene products, and to
CC   detect and distinguish between senescent and non-senescent cells. It can
CC   also be used to destroy cells expressing senescence specific (or related)
CC   gene products, and to screen for compounds capable of altering gene
CC   expression in senescent cells. The method can also be used to ameliorate
CC   problems associated with the accumulation of senescent cells such as age-
CC   related lipofuscin accumulation in the retina, and in the treatment of
CC   AIDS. Also, the method can be used to distinguish young cells from
CC   senescent cells in donor tissue, which is useful in removing senescent
CC   melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC   spots
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
```

```
Db         22 GCAAAAAAAAAAAA 9


RESULT 5428
AAT28047/c
ID   AAT28047 standard; DNA; 22 BP.
XX
AC   AAT28047;
XX
DT   31-DEC-1996  (first entry)
XX
DE   3'-primer D for human fibroblasts.
XX
KW   Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW   enhanced differential display; EDD; mRNA preparation; senescent cell;
KW   quiescent cell; dividing cell; senescence-related gene; gene expression;
KW   non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW   donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS   Synthetic.
XX
PN   WO9613610-A2.
XX
PD   09-MAY-1996.
XX
PF   24-AUG-1995;   95WO-US011230.
XX
PR   31-OCT-1994;   94US-00332420.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Hirsch KS,  Villeponteau B,  Feng J,  Funk W,  West MD;
XX
DR   WPI; 1996-251464/25.
XX
PT   Identifying, isolating and regulating senescence-related genes - useful
PT   to ameliorate problems associated with accumulation of senescent cells,
PT   e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS   Claim 6; Page 25; 135pp; English.
XX
CC   AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC   differential display (EDD), which is used in conjuncture with the method
CC   of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC   represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC   5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC   complementary to the poly-A tail of the mRNA. In the method of the
CC   invention, mRNA is isolated from a senescent cell, and a young quiescent
CC   cell, and the mRNAs are amplified in separate reaction mixtures. The
CC   amplified sequences are then separated by size or charge, and the
CC   products are analysed to identify a gene from young quiescent cells and
CC   dividing cells, that is present at a different level from senescent
CC   cells. The method can be used for the rapid and efficient identification
CC   and isolation of senescence-related genes and gene products, and to
CC   detect and distinguish between senescent and non-senescent cells. It can
CC   also be used to destroy cells expressing senescence specific (or related)
CC   gene products, and to screen for compounds capable of altering gene
CC   expression in senescent cells. The method can also be used to ameliorate
CC   problems associated with the accumulation of senescent cells such as age-
CC   related lipofuscin accumulation in the retina, and in the treatment of
CC   AIDS. Also, the method can be used to distinguish young cells from
CC   senescent cells in donor tissue, which is useful in removing senescent
CC   melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC   spots
XX
SQ   Sequence 22 BP; 2 A; 3 C; 4 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
```

```
Db         22 ACAAAAAAAAAAAA 9


RESULT 5429
AAT58487/c
ID   AAT58487 standard; DNA; 22 BP.
XX
AC   AAT58487;
XX
DT   21-MAR-1997  (first entry)
XX
DE   First primer #4 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 15; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 2 A; 3 C; 4 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ACAAAAAAAAAAAA 9


RESULT 5430
AAT58495/c
ID   AAT58495 standard; DNA; 22 BP.
XX
AC   AAT58495;
XX
DT   24-MAR-1997  (first entry)
XX
DE   First primer #12 for use in enhanced differential display method.
XX
KW   Differential Display; Enhanced Differential Display; EDD; screening;
KW   gene expression; cell type; different; cell development; gene typing;
KW   identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   US5580726-A.
XX
PD   03-DEC-1996.
XX
PF   29-APR-1994;   94US-00235180.
XX
PR   29-APR-1994;   94US-00235180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Linskens MHK,  Feng J,  Villeponteau B,  Funk W;
XX
DR   WPI; 1997-033564/03.
XX
PT   Detection of differentially expressed mRNA mols. - using two-step
PT   polymerase chain reaction amplification method.
XX
PS   Claim 9; Col 17; 15pp; English.
XX
CC   An improved method of Differential Display, named Enhanced Differential
CC   Display (EDD) has been designed as a technique for screening differences
CC   in gene expression between various cell types or between different stages
CC   of cell development. The technique is highly reproducible, leading to
CC   precise typing of the expressed genes in any given cell. EDD analysis
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
Db         22 GCAAAAAAAAAAAA 9


RESULT 5431
AAX55049/c
ID   AAX55049 standard; DNA; 22 BP.
XX
AC   AAX55049;
XX
DT   05-JUL-1999  (first entry)
XX
DE   C/EBP-beta antisense oligonucleotide fragment.
XX
KW   Antisense oligonucleotide; multiple target; antisense treatment;
KW   impaired respiration; inflammation; lung disease;
KW   pulmonary vasoconstriction; inflammation; allergic rhinitis;
```

KW acute asthma; allergy; asthma; impeded respiration;
KW respiratory distress syndrome; pain; cystic fibrosis;
KW pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW prostate cancer; ss.
XX
OS Synthetic.
XX
PN WO9913886-A1.
XX
PD 25-MAR-1999.
XX
PF 17-SEP-1998; 98WO-US019419.
XX
PR 17-SEP-1997; 97US-0059160P.
PR 09-JUN-1998; 98US-00093972.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 1999-229400/19.
XX
PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT vasoconstriction.
XX
PS Disclosure; Page 70; 120pp; English.
XX
CC The specification describes antisense oligonucleotides (AAX52869-X55271)
CC directed against at least 2 mRNAs selected from target genes, coding and
CC non-coding regions of RNAs corresponding to target genes, gene initiation
CC codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
CC -end and the juxta-section between coding and non-coding regions and all
CC segments of RNAs encoding proteins associated with one or more diseases,
CC conditions or mixtures. The antisense oligonucleotides may be derived
CC from sequences AAX55272-74. These multiple target oligonucleotides
CC (specifically AAX55180-271) can be used for the antisense treatment of
CC diseases and conditions. Typical diseases and conditions are those
CC associated with impaired respiration and inflammation, including lung
CC diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC acute asthma, allergies, asthma, impeded respiration, respiratory
CC distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC well as all types of cancers which may metastasize or have metastasized
CC to the lungs, including breast and prostate cancer
XX
SQ Sequence 22 BP; 0 A; 7 C; 14 G; 1 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 22;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5432
AAA34496/c
ID AAA34496 standard; DNA; 22 BP.
XX
AC AAA34496;
XX
DT 28-JUL-2000 (first entry)
XX
DE Human adenosine receptor related polynucleotide SEQ ID NO:2185.
XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothioate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS Homo sapiens.
XX
PN WO200009525-A2.
XX
PD 24-FEB-2000.
XX
PF 03-AUG-1999; 99WO-US017712.
XX
PR 03-AUG-1998; 98US-0095212P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 2000-205971/18.
XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
PT vasoconstruction, inflammation, allergies, asthma, hypertension,
PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT cancers.
XX
PS Disclosure; Page 539; 1343pp; English.
XX
CC The present invention describes a new composition comprising an antisense
CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impeded respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing
XX
SQ Sequence 22 BP; 0 A; 7 C; 14 G; 1 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 22;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5433
AAZ47353/c
ID AAZ47353 standard; DNA; 22 BP.
XX
AC AAZ47353;

```
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer M used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 2 A; 4 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAAAA 2798
              | ||||||||||||
Db         22 GCAAAAAAAAAAAA 9


RESULT 5434
AAZ47345/c
ID   AAZ47345 standard; DNA; 22 BP.
XX
AC   AAZ47345;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer D used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 2 A; 3 C; 4 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ACAAAAAAAAAAAA 9


RESULT 5435
AAF20618/c
ID   AAF20618 standard; DNA; 22 BP.
XX
AC   AAF20618;
XX
DT   14-MAR-2001  (first entry)
XX
DE   Human C/EBP polynucleotide fragment #2185.
XX
KW   Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW   human; airway disorder; bronchoconstriction; lung inflammation;
KW   surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW   immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW   respiratory obstruction; pulmonary obstruction; impeded respiration;
```

```
KW   surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW   respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW   pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW   chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW   cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200062736-A2.
XX
PD   26-OCT-2000.
XX
PF   24-MAR-2000; 2000WO-US008020.
XX
PR   06-APR-1999;   99US-0127958P.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
PA   (NYCE/) NYCE J W.
XX
PI   Nyce JW;
XX
DR   WPI; 2000-679539/66.
XX
PT   Low adenosine (A) content antisense oligonucleotides which do not trigger
PT   adenosine receptors during metabolism, useful e.g. for treating cancers
PT   and respiratory obstructions.
XX
PS   Claim 14; Page 264; 1592pp; English.
XX
CC   The present invention describes low adenosine (A) content antisense
CC   oligonucleotides and compositions (I) comprising them. In the antisense
CC   oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC   (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC   immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC   The antisense oligonucleotides and (I) can be used to down-regulate the
CC   expression and or activity of target polypeptides associated with
CC   lung/respiratory disorders and malignancies, such as stimulating and
CC   activating peptide factors and transmitters, transcription factors,
CC   immunoglobulins and antibodies, antibody receptors, cytokines and
CC   chemokines, endogenously produced specific and non-specific enzymes,
CC   binding proteins, adhesion molecules and their receptors, cytokine and
CC   chemokine receptors, adenosine receptors, bradykinin receptors, central
CC   nervous system (CNS) and peripheral nervous and non-nervous system
CC   receptors, CNS and peripheral nervous and non-nervous system peptide
CC   transmitters, defensins, growth factors, vasoactive peptides and
CC   receptors, binding proteins and malignancy associated proteins. The
CC   antisense oligonucleotides may be used in this way to treat disorders
CC   including respiratory obstruction (especially pulmonary obstruction
CC   and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC   surfactant hypoproduction which are associated with a disease or
CC   condition selected from pulmonary vasoconstriction, inflammation,
CC   allergies, asthma, impeded respiration, respiratory distress syndrome
CC   (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC   hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC   pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC   and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC   fragments and antisense oligonucleotides used in the exemplification of
CC   the present invention
XX
SQ   Sequence 22 BP; 0 A; 7 C; 14 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   72.7%;  Pred. No. 6.1e+03;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy        470 GCCTGGCCCGGCCGCCAGAGCC 491
              ||| ||| | ||||||   |||
Db         22 GCCAGGCGCCGCCGCCCCCGCC 1


RESULT 5436
AAH22188/c
ID   AAH22188 standard; DNA; 22 BP.
XX
AC   AAH22188;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer D.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 2 A; 3 C; 4 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 22;
  Best Local Similarity   92.9%;  Pred. No. 6.1e+03;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAA 2799
              | ||||||||||||
Db         22 ACAAAAAAAAAAAA 9


RESULT 5437
ABZ96312/c
ID   ABZ96312 standard; DNA; 22 BP.
XX
AC   ABZ96312;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human C/EBP antisense fragment no.2172.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
```

XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 11554; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 22 BP; 0 A; 7 C; 14 G; 1 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 22;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5438
AAX55048/c
ID AAX55048 standard; DNA; 23 BP.
XX
AC AAX55048;
XX
DT 05-JUL-1999 (first entry)
XX
DE C/EBP-beta antisense oligonucleotide fragment.
XX
KW Antisense oligonucleotide; multiple target; antisense treatment;
KW impaired respiration; inflammation; lung disease;
KW pulmonary vasoconstriction; inflammation; allergic rhinitis;
KW acute asthma; allergy; asthma; impeded respiration;
KW respiratory distress syndrome; pain; cystic fibrosis;
KW pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW prostate cancer; ss.
XX
OS Synthetic.
XX
PN WO9913886-A1.
XX
PD 25-MAR-1999.
XX
PF 17-SEP-1998; 98WO-US019419.
XX
PR 17-SEP-1997; 97US-0059160P.
PR 09-JUN-1998; 98US-00093972.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 1999-229400/19.
XX
PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT vasoconstriction.
XX
PS Disclosure; Page 70; 120pp; English.
XX
CC The specification describes antisense oligonucleotides (AAX52869-X55271)
CC directed against at least 2 mRNAs selected from target genes, coding and
CC non-coding regions of RNAs corresponding to target genes, gene initiation
CC codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
CC -end and the juxta-section between coding and non-coding regions and all
CC segments of RNAs encoding proteins associated with one or more diseases,
CC conditions or mixtures. The antisense oligonucleotides may be derived
CC from sequences AAX55272-74. These multiple target oligonucleotides
CC (specifically AAX55180-271) can be used for the antisense treatment of
CC diseases and conditions. Typical diseases and conditions are those
CC associated with impaired respiration and inflammation, including lung
CC diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC acute asthma, allergies, asthma, impeded respiration, respiratory
CC distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC well as all types of cancers which may metastasize or have metastasized
CC to the lungs, including breast and prostate cancer
XX
SQ Sequence 23 BP; 0 A; 7 C; 14 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 23;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5439
AAA34495/c
ID AAA34495 standard; DNA; 23 BP.
XX
AC AAA34495;
XX
DT 28-JUL-2000 (first entry)
XX
DE Human adenosine receptor related polynucleotide SEQ ID NO:2184.
XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothioate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;

```
KW   lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW   respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW   pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW   cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS   Homo sapiens.
XX
PN   WO200009525-A2.
XX
PD   24-FEB-2000.
XX
PF   03-AUG-1999;   99WO-US017712.
XX
PR   03-AUG-1998;   98US-0095212P.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
DR   WPI; 2000-205971/18.
XX
PT   New antisense oligonucleotides useful for treating e.g. pulmonary
PT   vasoconstruction, inflammation, allergies, asthma, hypertension,
PT   bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT   cancers.
XX
PS   Disclosure; Page 539; 1343pp; English.
XX
CC   The present invention describes a new composition comprising an antisense
CC   oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC   nucleic acids involved in bronchoconstriction, allergies, and/or
CC   inflammation. The ON can have antiinflammatory, antiallergic,
CC   antiasthmatic, cytostatic and analgesic activities. The compositions are
CC   useful for the treatment of diseases associated with inflammation,
CC   impaired airways, including lung disease and diseases whose secondary
CC   effects afflict the lungs of a subject. They can be used for treating
CC   e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC   impeded respiration, respiratory distress syndrome, pain, cystic
CC   fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC   pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC   carcinomas, and cancers which may metastasise to the lungs, including
CC   breast and prostate cancer. The reduction of the adenosine content of the
CC   ONs reduces side effects. The A-containing ONs break down with the
CC   release of deoxyadenosine which activates adenosine receptors causing
CC   bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC   nucleotide sequences given in the sequence listing from the present
CC   invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC   sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC   from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC   AAA33992) are specifically claimed ONs from the present invention. N.B.
CC   Sequences given in the disclosure of the present invention do not match
CC   up with their corresponding SEQ ID NO: sequences given in the sequence
CC   listing
XX
SQ   Sequence 23 BP; 0 A; 7 C; 14 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 23;
  Best Local Similarity   72.7%;  Pred. No. 6.1e+03;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy        470 GCCTGGCCCGGCCGCCAGAGCC 491
              ||| ||| | ||||||   |||
Db         22 GCCAGGCGCCGCCGCCCCCGCC 1


RESULT 5440
AAZ47417
ID   AAZ47417 standard; DNA; 23 BP.
XX
AC   AAZ47417;
XX
DT   06-MAR-2000  (first entry)
XX
DE   Probe 1 used to confirm the correct amplification of GST-Pi.
XX
KW   Glutathione-S-transferase-Pi; GST-Pi; methylated; diagnose; bisulphite;
KW   cytosine deamination; prostate cancer; breast cancer; cervical cancer;
KW   liver cancer; PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9955905-A1.
XX
PD   04-NOV-1999.
XX
PF   23-APR-1999;   99WO-AU000306.
XX
PR   23-APR-1998;   98AU-00003129.
XX
PA   (CSIR ) COMMONWEALTH SCI & IND RES ORG.
XX
PI   Clark SJ,  Millar DS,  Molloy PL;
XX
DR   WPI; 2000-062041/05.
XX
PT   Diagnosis and prognosis of diseases involving cytosine methylation of the
PT   glutathione-S-transferase gene, especially prostatic cancer.
XX
PS   Claim 46; Page 71; 111pp; English.
XX
CC   Sequences AAZ47417-Z47422 are used as probes to determine that any
CC   amplified PCR products of the invention are due to DNA in which all
CC   unmethylated cytosines are converted to uracils. The invention relates to
CC   a diagnostic or prognostic assay. The assay includes amplification of a
CC   target region of the glutathione-S-transferase (GST) Pi gene under
CC   conditions which result in amplification occurring only if at least one
CC   cytosine is methylated. The amplified sequence can then be subjected to
CC   analysis and abnormal cytosine methylation can then be detected. The
CC   target region of DNA is treated with a high concentration of bisulphite
CC   resulting in selective deamination of cytosine, converting it to uracil.
CC   Methylated cytosines are resistant to the chemical deamination, and
CC   therefore when PCR amplification is carried out on the target DNA,
CC   cytosines that were methylated in the original sample prior to bisulphite
CC   treatment will still be read as cytosine, while unmethylated cytosines
CC   will be read as thymine. PCR primers are designed to anneal to the target
CC   sequence after bisulphite treatment. The primers can be either selective
CC   or non-selective for methylated sites, non-selective primers avoid sites
CC   that may or may not be methylated. There is a strong correlation between
CC   the methylation of regulatory regions of genes and their lack of
CC   expression. Expression of the GST-Pi gene is lost in nearly all cases of
CC   prostate cancer. The method is used for the diagnosis of cancer,
CC   particularly of prostate, breast, cervix, or liver cancer
XX
SQ   Sequence 23 BP; 17 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 23;
  Best Local Similarity   72.7%;  Pred. No. 6.1e+03;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy       2781 AATTGAAAAAAAAAAAAAAAA 2802
              ||   |||||| ||| ||| ||
Db          2 AACCTAAAAAATAAACAAACAA 23


RESULT 5441
AAF20617/c
ID   AAF20617 standard; DNA; 23 BP.
XX
AC   AAF20617;
XX
DT   14-MAR-2001  (first entry)
XX
DE   Human C/EBP polynucleotide fragment #2184.
XX
KW   Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
```

KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200062736-A2.
XX
PD 26-OCT-2000.
XX
PF 24-MAR-2000; 2000WO-US008020.
XX
PR 06-APR-1999; 99US-0127958P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
PA (NYCE/) NYCE J W.
XX
PI Nyce JW;
XX
DR WPI; 2000-679539/66.
XX
PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.
XX
PS Claim 14; Page 264; 1592pp; English.
XX
CC The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (I) comprising them. In the antisense
CC oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (I) can be used to down-regulate the
CC expression and or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and
CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokine and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central
CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensins, growth factors, vasoactive peptides and
CC receptors, binding proteins and malignancy associated proteins. The
CC antisense oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impeded respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antisense oligonucleotides used in the exemplification of
CC the present invention
XX
SQ Sequence 23 BP; 0 A; 7 C; 14 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 23;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5442
ABZ96311/c
ID ABZ96311 standard; DNA; 23 BP.
XX
AC ABZ96311;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human C/EBP antisense fragment no.2171.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 11553; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 23 BP; 0 A; 7 C; 14 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 23;
Best Local Similarity 72.7%; Pred. No. 6.1e+03;
Matches 16; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 470 GCCTGGCCCGGCCGCCAGAGCC 491
||| ||| | |||||| |||
Db 22 GCCAGGCGCCGCCGCCCCCGCC 1

RESULT 5443
AAZ24999/c
ID AAZ24999 standard; DNA; 24 BP.
XX
AC AAZ24999;
XX
DT 24-DEC-1999 (first entry)
XX
DE Sense probe to Fragile X syndrome gene.
XX
KW Trinucleotide repeat; myotonic-protein kinase; myotonic dystrophy; probe;
KW in situ hybridisation; detection; expansion; Fragile X syndrome; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN US5962332-A.
XX
PD 05-OCT-1999.
XX
PF 11-DEC-1995; 95US-00570155.
XX
PR 17-MAR-1994; 94US-00214823.
PR 07-MAR-1995; 95US-00399499.
XX
PA (UYMA-) UNIV MASSACHUSETTS.
XX
PI Taneja KL, Singer RH;
XX
DR WPI; 1999-579615/49.
XX
PT Detection of trinucleotide repeats.
XX
PS Disclosure; Col 20; 18pp; English.
XX
CC This oligonucleotides is targeted to the CGG trinucleotide repeats found
CC in the FMR1 gene. Excessive numbers of the trinucleotide repeats in the
CC FMR1 gene leads to the disease Fragile X syndrome. This sequence is used
CC as a sense oligonucleotide control probe for the hybridisation reaction.
CC The invention relates to a method for the detection of trinucleotide
CC repeat expansion, e.g. in the FMR1 gene or Mt-PK gene (leading to
CC myotonic dystrophy) by in situ hybridization
XX
SQ Sequence 24 BP; 0 A; 6 C; 14 G; 2 T; 0 U; 2 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 24;
Best Local Similarity 66.7%; Pred. No. 6e+03;
Matches 16; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

Qy 429 ACCCCCTGCACCAGCCGGCGCCCA 452
| || | || | |||| |||| |
Db 24 ANCCGCCGCCGCCGCCGCCGCCNA 1

RESULT 5444
AAC96355/c
ID AAC96355 standard; DNA; 25 BP.
XX
AC AAC96355;
XX
DT 26-FEB-2001 (first entry)
XX
DE HLA DPB1 gene PCR primer #87.
XX
KW DNA sequence analysis; sequencing; protein sequence; protein structure;
KW gene typing; organ donation; bacteria identification; 16s rRNA; HLA;
KW human leukocyte antigen; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200065088-A2.
XX
PD 02-NOV-2000.
XX
PF 20-APR-2000; 2000WO-EP003636.
XX
PR 26-APR-1999; 99EP-00303215.
XX
PA (AMSH) AMERSHAM PHARMACIA BIOTECH AB.
XX
PI Ulfendahl P, Wong K;
XX
DR WPI; 2000-679677/66.
XX
PT Identifying extendible primers for use in identification, or
PT classification of a nucleic acid of an organism, allele or gene such as
PT class 1/2 HLA comprises identifying all possible nucleotide sequences of
PT specific length.
XX
PS Claim 14; Page 50; 66pp; English.
XX
CC The present invention provides a method for identifying a set of
CC extendible primers which can be used in the identification, typing and
CC classification of genes. This can then be used to predict protein
CC sequence and structure, in organ donation to match the organ with the
CC receiver, and to identify bacteria in a sample. The method can be used to
CC type the human leukocyte antigen genes (HLA) and 16s rRNA genes in
CC particular
XX
SQ Sequence 25 BP; 5 A; 2 C; 5 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.4; DB 1; Length 25;
Best Local Similarity 92.9%; Pred. No. 5.9e+03;
Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAA 2796
|| |||||||||||
Db 14 TTAAAAAAAAAAAA 1

RESULT 5445
AAZ49618/c
ID AAZ49618 standard; DNA; 25 BP.
XX
AC AAZ49618;
XX
DT 07-APR-2000 (first entry)
XX
DE PCR primer-2 for synthesis of carrot CR16.1 fragment for plant promoter.
XX
KW PCR primer; synthetic DNA; plant promoter; CR16 fragment; carrot;
KW transgenic plant; soybean glycinin; stearoyl-ACP-desaturase gene;
KW male sterility-related gene; ss.
XX
OS Daucus carota.
XX
PN EP976832-A2.
XX
PD 02-FEB-2000.
XX
PF 13-JUL-1999; 99EP-00113732.
XX
PR 15-JUL-1998; 98JP-00200372.
XX
PA (SUMO) SUMITOMO CHEM CO LTD.
XX
PI Ishige F, Nishikawa S, Oeda K;
XX
DR WPI; 2000-128374/12.
XX
PT Novel promoter used to produce transgenic plants with higher expression
PT of a desired gene.
XX
PS Example 1; Page 14; 24pp; English.
XX

XX
KW Human; apoptosis; CCR9; anti-tumour; tumour; cancer; diagnosis; primer;
KW ss.
XX
OS Homo sapiens.
XX
PN JP2000210089-A.
XX
PD 02-AUG-2000.
XX
PF 18-NOV-1999; 99JP-00327885.
XX
PR 20-NOV-1998; 98JP-00330302.
XX
PA (ASAK) ASAHI BREWERIES LTD.
XX
DR WPI; 2000-614556/59.
XX
PT Gene and its encoded protein that induce apoptosis, useful for producing
PT a malignant tumor gene treating agent and for the diagnosis on the
PT resistance of cancer cells against an anticancer agent.
XX
PS Example 1; Page 4; 13pp; Japanese.
XX
CC The present invention describes the human CRR9 protein, which is an
CC apoptosis related protein having apoptosis-inducing activity. Human CCR9
CC has anti-tumour activity, and can be used to produce a malignant tumour
CC gene treating agent. The CCR9 gene and protein can be used for the
CC diagnosis of the resistance of cancer cells against an anticancer agent.
CC The present sequence represents a primer which is used in an example from
CC the present invention
XX
SQ Sequence 16 BP; 2 A; 1 C; 1 G; 11 T; 0 U; 1 Other;

Query Match 0.4%; Score 11.6; DB 1; Length 16;
Best Local Similarity 91.7%; Pred. No. 5.7e+03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
:|||||||||||
Db 16 KAAAAAAAAAAA 5

RESULT 5590
AAA97561/c
ID AAA97561 standard; DNA; 16 BP.
XX
AC AAA97561;
XX
DT 29-JAN-2001 (first entry)
XX
DE Reverse transcription primer used to isolate human mtHSP75.
XX
KW Human mitochondria-localised heat shock protein 75; mitochondrial HSP75;
KW mtHSP75; quantitative detection; expression level; cancer; tumour;
KW anticancer drug selection; prognosis; platinum complex compound;
KW cisplatin; reverse transcription primer; ss.
XX
OS Synthetic.
XX
PN JP2000224989-A.
XX
PD 15-AUG-2000.
XX
PF 20-NOV-1998; 98JP-00330309.
XX
PR 20-NOV-1998; 98JP-00330309.
XX
PA (ASAK) ASAHI BREWERIES LTD.
XX
DR WPI; 2000-605127/58.
XX
PT A method for sensitivity test to anti-cancer agents.
XX
PS Example 1; Page 3; 7pp; Japanese.
XX
CC The invention relates to a novel method for testing the sensitivity of
CC cancer cells to anti-cancer agents. The method comprises quantitative
CC detection of a mitochondria-localised heat shock protein 75 (mtHSP75)
CC gene (mtHSP75 cDNA given in AAA97560). Cancer cells expressing high
CC levels of mtHSP75 are more likely to be resistant to anti-cancer agents,
CC while those expressing low levels are more likely to be susceptible to
CC such agents. The invention also relates to the use of RNA complementary
CC to mtHSP75 or an mtHSP75 gene fragment in the method of the invention,
CC the use of Northern blotting to detect mtHSP75 RNA, and the use of
CC Western blotting to detect the mtHSP75 gene product. The method of the
CC invention may particularly be used to test the sensitivity of cancer
CC cells to platinum complex compounds, especially cisplatin. The invention
CC provides for the selection of anti-cancer agents likely to be effective
CC against a tumour in a particular individual. The present sequence
CC represents a reverse transcription primer used to generate human mtHSP75
CC cDNA in an exemplification of the invention
XX
SQ Sequence 16 BP; 2 A; 1 C; 1 G; 11 T; 0 U; 1 Other;

Query Match 0.4%; Score 11.6; DB 1; Length 16;
Best Local Similarity 91.7%; Pred. No. 5.7e+03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
:|||||||||||
Db 16 KAAAAAAAAAAA 5

Search completed: June 10, 2004, 12:19:49
Job time : 151 secs

```
CC   blot hybridisation to identify or detect the sequence or specific
CC   mutations of any gene, in mapping the 5' termini of mRNA molecules by
CC   primer extensions or in screening cDNA or genomic libraries or subclones
CC   for additional subclones containing segments of DNA that have been
CC   isolated and previously sequenced. The sequence presented is one of the
CC   nucleic acid probes incorporated in the microarray. Note: The sequence
CC   data for this patent can also be obtained in electronic format directly
CC   from USPTO at seqdata.uspto.goc/sequence.html
XX
SQ   Sequence 25 BP; 12 A; 6 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 25;
  Best Local Similarity   86.7%;  Pred. No. 6e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1248 AATTCACAGAACTTC 1262
                ||| |||||||| ||
Db          3 AATACACAGAACCTC 17


RESULT 5587
ABL43221
ID   ABL43221 standard; DNA; 25 BP.
XX
AC   ABL43221;
XX
DT   11-APR-2002  (first entry)
XX
DE   Human chromosome 1p36-35 PCR primer SEQ ID NO:265.
XX
KW   Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW   PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2001321190-A.
XX
PD   20-NOV-2001.
XX
PF   12-MAR-2001; 2001JP-00068285.
XX
PR   10-MAR-2000; 2000JP-00066716.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
PA   (GENO-) GENOTEX YG.
XX
DR   WPI; 2002-144136/19.
XX
PT   Arraying genome clones.
XX
PS   Claim 4; Page 10; 528pp; Japanese.
XX
CC   The present invention describes a method of arraying genome clones. The
CC   method comprises: (a) clones of the genomic libraries contained in
CC   multiwell plates numbered for discrimination are mixed in each of the
CC   multiwell plates; (b) a primer designed based on the chromosome marker
CC   sequence is added to the mixture to carry out an amplification reaction;
CC   (c) a signal corresponding to the marker is detected from the resultant
CC   amplified product to specify the discrimination Nos. of the multiwell
CC   plates containing the clones having said marker sequence; (d) the order
CC   of the markers is changed so that the same discrimination Nos. succeed to
CC   the maximum in the specified discrimination Nos. to array the multiwell
CC   plates; (e) the clones in the multiwell plates of the specified
CC   discrimination Nos. are mixed respectively in each wells of longitudinal
CC   and lateral directions; (f) the mixed clones are cultured and the
CC   resultant cultures are amplified by using the above primer; (g) signals
CC   are detected from the amplified products; (h) the clones in the multiwell
CC   plates are specified from the detected result; and (i) the clones are
CC   reconstituted as the positions on the chromosome and arrayed. The
CC   microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC   PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC   represent PCR primers for human chromosome 21q22.1, which are
CC   specifically claimed for use in the present invention
XX
SQ   Sequence 25 BP; 13 A; 3 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 25;
  Best Local Similarity   69.6%;  Pred. No. 6e+03;
  Matches   16;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy       2508 ACATCATAAGGTTTTATTCATAT 2530
                | | || ||||||| | | | ||
Db          1 AAAACAGAAGGTTTCAATAAAAT 23


RESULT 5588
AAA99205/c
ID   AAA99205 standard; DNA; 16 BP.
XX
AC   AAA99205;
XX
DT   23-JAN-2001  (first entry)
XX
DE   Human apoptosis related protein CCR9 related primer #1.
XX
KW   Human; apoptosis; CCR9; anti-tumour; tumour; cancer; diagnosis; primer;
KW   ss.
XX
OS   Homo sapiens.
XX
PN   JP2000210089-A.
XX
PD   02-AUG-2000.
XX
PF   18-NOV-1999;   99JP-00327885.
XX
PR   20-NOV-1998;   98JP-00330302.
XX
PA   (ASAK ) ASAHI BREWERIES LTD.
XX
DR   WPI; 2000-614556/59.
XX
PT   Gene and its encoded protein that induce apoptosis, useful for producing
PT   a malignant tumor gene treating agent and for the diagnosis on the
PT   resistance of cancer cells against an anticancer agent.
XX
PS   Example 1; Page 4; 13pp; Japanese.
XX
CC   The present invention describes the human CRR9 protein, which is an
CC   apoptosis related protein having apoptosis-inducing activity. Human CCR9
CC   has anti-tumour activity, and can be used to produce a malignant tumour
CC   gene treating agent. The CCR9 gene and protein can be used for the
CC   diagnosis of the resistance of cancer cells against an anticancer agent.
CC   The present sequence represents a primer which is used in an example from
CC   the present invention
XX
SQ   Sequence 16 BP; 2 A; 1 C; 1 G; 11 T; 0 U; 1 Other;

  Query Match             0.4%;  Score 11.6;  DB 1;  Length 16;
  Best Local Similarity   91.7%;  Pred. No. 5.7e+03;
  Matches   11;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              :||||||||||||
Db         16 KAAAAAAAAAAA 5


RESULT 5589
AAA99206/c
ID   AAA99206 standard; DNA; 16 BP.
XX
AC   AAA99206;
XX
DT   23-JAN-2001  (first entry)
XX
DE   Human apoptosis related protein CCR9 related primer #2.
```

```
XX
PS   Example 11; Page 70; 122pp; Japanese.
XX
CC   AAC90701 to AAC90715 encode the human secretory proteins given in
CC   AAB36661 to AAB36675. The proteins can have cytostatic, anti-
CC   inflammatory, haematopoietic, anti-coagulant, immunomodulatory and
CC   hepatotropic activities, and can be used as cell migratory agents, cell
CC   proliferation- stimulants and cell differentiation-inducers. The proteins
CC   are useful in the treatment and prevention of diseases such as cancer,
CC   lung function disorder, liver function disorder, gastrointestinal
CC   disorder and immune diseases. AAC90716 to AAC90755 represent PCR primers
CC   which are used in the exemplification of the present invention
XX
SQ   Sequence 25 BP; 1 A; 7 C; 10 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 25;
  Best Local Similarity   86.7%;  Pred. No. 6e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        604 CGACCTGCTGCTGCC 618
              || |||||||||| |
Db          6 CGGCCTGCTGCTGGC 20


RESULT 5585
ACI62001/c
ID   ACI62001 standard; DNA; 25 BP.
XX
AC   ACI62001;
XX
DT   13-OCT-2003  (first entry)
XX
DE   Human microarray DNA oligonucleotide SEQ ID NO 61992.
XX
KW   EST; ss; probe; expressed sequence tag; microarray; gene expression;
KW   genetic variation; biallelic marker; polymorphism; human;
KW   cross-species comparison.
XX
OS   Homo sapiens.
XX
PN   US2003104410-A1.
XX
PD   05-JUN-2003.
XX
PF   15-MAR-2002; 2002US-00098263.
XX
PR   16-MAR-2001; 2001US-0276759P.
XX
PA   (AFFY-) AFFYMETRIX INC.
XX
PI   Mittmann MP;
XX
DR   WPI; 2003-567953/53.
XX
PT   New array of nucleic acid probes, useful for in situ hybridization, in
PT   Southern, Northern or dot-blot hybridization to identify or detect the
PT   sequence or specific mutations of any gene.
XX
PS   Claim 1; SEQ ID NO 61992; 9pp; English.
XX
CC   The invention discloses a microarray comprising a plurality of nucleic
CC   acid probes including one of 2,018,500 fully defined sequences, or its
CC   perfect match, perfect mismatch, antisense match or antisense mismatch.
CC   Also disclosed is a method of gene expression analysis. The array is used
CC   in monitoring gene expression levels by hybridisation to a DNA library,
CC   in analysis of genetic variation or in hybridisation of tag-labelled
CC   compounds. The nucleic acid probes are specifically designed for analysis
CC   of at least one target sequence. The method of analysis comprises
CC   hybridising at least one or more nucleic acids to at least two or more
CC   nucleic acid probes and detecting the hybridisation. The nucleic acid
CC   probes are attached to a solid support. The analysis comprises monitoring
CC   gene expression levels, identifying biallelic markers or polymorphisms,
CC   or family members of a gene and a cross-species comparison. Each of the
CC   nucleic acids further comprises a tag sequence. The array of nucleic acid
CC   probes is useful in in situ hybridisation, in Southern, Northern or dot-
CC   blot hybridisation to identify or detect the sequence or specific
CC   mutations of any gene, in mapping the 5' termini of mRNA molecules by
CC   primer extensions or in screening cDNA or genomic libraries or subclones
CC   for additional subclones containing segments of DNA that have been
CC   isolated and previously sequenced. The sequence presented is one of the
CC   nucleic acid probes incorporated in the microarray. Note: The sequence
CC   data for this patent can also be obtained in electronic format directly
CC   from USPTO at seqdata.uspto.goc/sequence.html
XX
SQ   Sequence 25 BP; 4 A; 4 C; 6 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 25;
  Best Local Similarity   69.6%;  Pred. No. 6e+03;
  Matches   16;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy        925 ACCTGAATGCTTAAATGCCTCGT 947
              |||||||  || ||| | |  ||
Db         25 ACCTGAACACTGAAAAGACAAGT 3


RESULT 5586
ACK11064
ID   ACK11064 standard; DNA; 25 BP.
XX
AC   ACK11064;
XX
DT   14-OCT-2003  (first entry)
XX
DE   Human microarray DNA oligonucleotide SEQ ID NO 111045.
XX
KW   EST; ss; probe; expressed sequence tag; microarray; gene expression;
KW   genetic variation; biallelic marker; polymorphism; human;
KW   cross-species comparison.
XX
OS   Homo sapiens.
XX
PN   US2003104410-A1.
XX
PD   05-JUN-2003.
XX
PF   15-MAR-2002; 2002US-00098263.
XX
PR   16-MAR-2001; 2001US-0276759P.
XX
PA   (AFFY-) AFFYMETRIX INC.
XX
PI   Mittmann MP;
XX
DR   WPI; 2003-567953/53.
XX
PT   New array of nucleic acid probes, useful for in situ hybridization, in
PT   Southern, Northern or dot-blot hybridization to identify or detect the
PT   sequence or specific mutations of any gene.
XX
PS   Claim 1; SEQ ID NO 111045; 9pp; English.
XX
CC   The invention discloses a microarray comprising a plurality of nucleic
CC   acid probes including one of 2,018,500 fully defined sequences, or its
CC   perfect match, perfect mismatch, antisense match or antisense mismatch.
CC   Also disclosed is a method of gene expression analysis. The array is used
CC   in monitoring gene expression levels by hybridisation to a DNA library,
CC   in analysis of genetic variation or in hybridisation of tag-labelled
CC   compounds. The nucleic acid probes are specifically designed for analysis
CC   of at least one target sequence. The method of analysis comprises
CC   hybridising at least one or more nucleic acids to at least two or more
CC   nucleic acid probes and detecting the hybridisation. The nucleic acid
CC   probes are attached to a solid support. The analysis comprises monitoring
CC   gene expression levels, identifying biallelic markers or polymorphisms,
CC   or family members of a gene and a cross-species comparison. Each of the
CC   nucleic acids further comprises a tag sequence. The array of nucleic acid
CC   probes is useful in in situ hybridisation, in Southern, Northern or dot-
```

RESULT 5582
ADD06134/c
ID ADD06134 standard; DNA; 24 BP.
XX
AC ADD06134;
XX
DT 01-JAN-2004 (first entry)
XX
DE N-acetylgalactosamine transferase-38.61 RT-PCR primer, SEQ ID NO:3.
XX
KW N-acetylgalactosamine transferase-38.61; recombinant production;
KW gene therapy; cancer; blood disease; HIV infection;
KW human immunodeficiency virus; immune disorder; cytostatic;
KW immunomodulator; reverse transcription-PCR; RT-PCR; primer; ss.
XX
OS Unidentified.
XX
PN CN1382794-A.
XX
PD 04-DEC-2002.
XX
PF 26-APR-2001; 2001CN-00112757.
XX
PR 26-APR-2001; 2001CN-00112757.
XX
PA (BIOW-) BIOWINDOW GENE DEV INC SHANGHAI.
XX
PI Mao Y, Xie Y;
XX
DR WPI; 2003-269502/27.
XX
PT Polypeptide-N-acetylgalactosamine transferase-38.61 and polynucleotide
PT for coding it.
XX
PS Example 3; SEQ ID NO 3; 32pp; Chinese.
XX
CC The invention relates to N-acetylgalactosamine transferase-38.61
CC (ADD06133) and nucleic acids encoding it (ADD06132). The protein has a
CC molecular weight of 38.61 kD and has 55% identity and 72% homology over a
CC 319 amino acid stretch with the sequence given in ADD06141. The invention
CC also relates to a method for the recombinant production of the protein,
CC an antagonist of the protein, and the use of the protein, gene and
CC antagonist in therapeutic applications. N-acetylgalactosamine transferase
CC -38.61 can be used in the treatment of a variety of diseases such as
CC cancer, blood diseases, HIV (human immunodeficiency virus) infection and
CC immune disorders. Sequences ADD06134-ADD06135 represent reverse
CC transcription-PCR (RT-PCR) primers used in an exemplification of the
CC invention to isolate N-acetylgalactosamine transferase-38.61 cDNA.
XX
SQ Sequence 24 BP; 1 A; 8 C; 15 G; 0 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 24;
Best Local Similarity 69.6%; Pred. No. 6.2e+03;
Matches 16; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

Qy 52 CGGCGGGGGCGGCGGCAGACGCC 74
|||| | || || || | ||||
Db 24 CGGCTGCCGCCGCCGCCGCCGCC 2

RESULT 5583
ABL56688/c
ID ABL56688 standard; DNA; 24 BP.
XX
AC ABL56688;
XX
DT 30-JUL-2002 (first entry)
XX
DE PCR primer #2 for human class III MHC 61 cDNA.
XX
KW Human; class III MHC 61; immunological disease; inflammation;
KW organ transplantation; gene therapy; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO200226828-A1.
XX
PD 04-APR-2002.
XX
PF 02-JUL-2001; 2001WO-CN001116.
XX
PR 07-JUL-2000; 2000CN-00117015.
XX
PA (BIOW-) BIOWINDOW GENE DEV INC SHANGHAI.
XX
PI Mao Y, Xie Y;
XX
DR WPI; 2002-281324/32.
XX
PT Human class III MHC 61 and encoding polynucleotide, used in diagnosis and
PT treatment of immunological diseases and inflammation and in organ
PT transplantation.
XX
PS Example 3; Page 13; 40pp; Chinese.
XX
CC PCR primers ABL56687-88 were used to amplify cDNA encoding human class
CC III MHC 61. The polypeptide and polynucleotide are used in diagnosis and
CC treatment of immunological diseases and inflammation and in organ
CC transplantation. The polynucleotide may also be used for gene therapy
XX
SQ Sequence 24 BP; 10 A; 2 C; 0 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 24;
Best Local Similarity 69.6%; Pred. No. 6.2e+03;
Matches 16; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

Qy 2503 ATAACACATCATAAGGTTTTATT 2525
|||| || | ||||| || ||
Db 23 ATAATTAATAAAAAGGTATTTTT 1

RESULT 5584
AAC90736
ID AAC90736 standard; DNA; 25 BP.
XX
AC AAC90736;
XX
DT 14-MAR-2001 (first entry)
XX
DE Human secretory protein TGC-715 PCR primer SEQ ID NO:51.
XX
KW Human; secretory protein; cancer; immune disease; infectious disease;
KW lung function disorder; liver function disorder; antiinflammatory;
KW gastrointestinal disorder; cytostatic; haematopoietic; anticoagulant;
KW immunomodulatory; hepatotropic; cell proliferation-stimulant;
KW cell migratory agent; cell differentiation-inducer; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200071581-A1.
XX
PD 30-NOV-2000.
XX
PF 19-MAY-2000; 2000WO-JP003221.
XX
PR 20-MAY-1999; 99JP-00140229.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Itoh Y, Mogi S, Tanaka H, Ohkubo S, Ogi K;
XX
DR WPI; 2001-032023/04.
XX
PT Novel secretory protein and its salt with e.g. anti-cancer, anti-
PT inflammatory and hematopoietic, effects, applicable as drugs in remedies
PT and preventives to treat diseases like cancer and immune diseases.

```
XX
CC   The present invention provides a method of diagnosing a vascular disease
CC   in an individual, involving determining the sequence at various
CC   polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC   genes. The sequences at a number of polymorphic sites are also provided
CC   in the specification. In particular, the method can be used in the
CC   diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC   disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC   pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC   useful in forensics, paternity testing, genetic analysis and phenotype
CC   correlations to diseases. The present sequence is an example of one of
CC   the human gene SNPS shown in the specification
XX
SQ   Sequence 21 BP; 12 A; 1 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 21;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1495 GAAAATGGAGAAACA 1509
              ||||| ||||||| |
Db          5 GAAAAAGGAGAAAAA 19


RESULT 5580
ADD21875
ID   ADD21875 standard; DNA; 22 BP.
XX
AC   ADD21875;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Protein translation efficiency-related DNA sequence #59.
XX
KW   nucleotide production; translation efficiency; protein synthesis; ds.
XX
OS   Unidentified.
XX
PN   WO2003056009-A1.
XX
PD   10-JUL-2003.
XX
PF   27-DEC-2002; 2002WO-JP013756.
XX
PR   27-DEC-2001; 2001JP-00396941.
XX
PA   (ENDO/) ENDO Y.
XX
PI   Endo Y,  Sawasaki T;
XX
DR   WPI; 2003-618079/58.
XX
PT   Preparing translation controlling nucleotides used for increased
PT   efficiency during protein synthesis.
XX
PS   Claim 11; Page 55; 87pp; Japanese.
XX
CC   The invention comprises a method for preparing nucleotides that control
CC   translation efficiency of proteins. The nucleotides of the invention are
CC   useful for increasing efficiency during protein synthesis. The present
CC   DNA sequence is used in the exemplification of the invnetion.
XX
SQ   Sequence 22 BP; 4 A; 4 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 22;
  Best Local Similarity   86.7%;  Pred. No. 6.4e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2178 TTTTTTTTTAACTTT 2192
              |||||| |||| |||
Db          2 TTTTTTCTTAATTTT 16


RESULT 5581
ABK90968
ID   ABK90968 standard; DNA; 23 BP.
XX
AC   ABK90968;
XX
DT   05-NOV-2002  (first entry)
XX
DE   PCR primer, 22164, used to amplify human VH3 gene.
XX
KW   Human; PCR; primer; ss; antiHIV; chimeric protein; HIV-1;
KW   human immunodeficiency virus-1; envelope glycoprotein; env; gp120; CD4;
KW   cellular receptor; immunoglobulin; Ig; V1; V2; variable region;
KW   variable region-like membrane distal domain; antibody; heavy chain; VH;
KW   VH3; gene therapy; HIV infection; virus replication.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200259258-A2.
XX
PD   01-AUG-2002.
XX
PF   22-JAN-2002; 2002WO-IL000060.
XX
PR   22-JAN-2001; 2001IL-00141023.
XX
PA   (GAVI-) GAVISH-GALILEE BIO APPL LTD.
XX
PI   Gross G,  Meyuhas R;
XX
DR   WPI; 2002-608450/65.
XX
PT   New nucleic acid molecule encoding chimeric proteins with binding
PT   specificity for a site on HIV envelope glycoprotein gp120 and a site on
PT   gp120 protein or on the extracellular portion of human CD4, for
PT   preventing or treating HIV infection.
XX
PS   Example 4; Page 29; 48pp; English.
XX
CC   The invention discloses a nucleic acid molecule encoding a functional
CC   chimeric protein with binding specificity for at least two different
CC   sites. At least one site is on the human immunodeficiency virus-1 (HIV-1)
CC   envelope glycoprotein (env), gp120, and the other site is either on the
CC   gp120 protein or on the extracellular portion of human CD4, the major
CC   cellular receptor for HIV. The chimeric protein essentially comprises a
CC   first binding region of a soluble extracellular portion of human CD4,
CC   consisting of the immunoglobulin (Ig) variable region-like membrane
CC   distal domains (V1 and V2) and a second binding region of a variable
CC   region of an antibody heavy chain (VH), encoded by the VH3 gene, which is
CC   capable of being attached to an adjacent and non-overlapping site on the
CC   gp120 protein, or to a site on the extracellular portion of human CD4,
CC   and is capable of increasing the capacity of the extracellular portion of
CC   human CD4 to interact with gp120 and to block the interaction of HIV with
CC   membranal CD4. These two binding regions are physically connected by a
CC   linker region. The chimeric protein of the invention is useful for gene
CC   therapy and for preventing and treating an HIV infection and for
CC   neutralising and inhibiting virus replication and infectivity in a
CC   subject, preferably a mammal. The sequence presented is the PCR primer,
CC   22164, which was used to amplify the human VH3 gene, used in the
CC   construction of the VH3-CD4 (V1 and V2) chimeric protein
XX
SQ   Sequence 23 BP; 3 A; 3 C; 11 G; 6 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 23;
  Best Local Similarity   86.7%;  Pred. No. 6.3e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2686 GAAATGGAGATTTGG 2700
              || |||||| |||||
Db          7 GAGATGGAGTTTTGG 21
```

PT sequence to at least one end of DNA fragments.
XX
PS Example 2; Page 42; 120pp; English.
XX
CC This invention relates to a novel method for preparing DNA molecules that
CC are useful in genomics, molecular biology and particularly for sequencing
CC purposes. Specifically, the invention describes preparing DNA fragments
CC from the random fragmentation of a parent DNA molecule, attaching a
CC primer to at least one end of each fragment to produce primer linked
CC fragments such that this plurality can be amplified as a whole.
CC Accordingly, this method prepares DNA templates that provide more
CC efficient sequencing for difficult DNA molecules, higher sequence quality
CC and longer reads. Furthermore, applications of this method include
CC conditioning the 3' end or providing 3' exonuclease activity to the end
CC of a DNA molecule, detecting a damaged DNA molecule and repairing the 3'
CC end, and preparing a DNA probe. This oligonucleotide sequence is the S36
CC primer used for positional amplification and sequencing of an Escherichia
CC coli (E. coli) genomic region. Specifically, the S36 primer is used in
CC the primary amplification of contig 13 of the E. coli genome, a method of
CC the invention
XX
SQ Sequence 21 BP; 6 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 21;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 792 GTCAGAAGGAGCTGG 806
||||||| | |||||
Db 15 GTCAGAATGCGCTGG 1

RESULT 5578
AAF96326/c
ID AAF96326 standard; DNA; 21 BP.
XX
AC AAF96326;
XX
DT 06-JUN-2001 (first entry)
XX
DE Human gene single nucleotide polymorphism #1087.
XX
KW Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW polymorphism; vascular disease; coronary artery disease; forensics;
KW myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW pulmonary embolism; paternity test; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Variation replace(11,A)
FT /*tag= a
FT /standard_name= "single nucleotide polymorphism"
XX
PN WO200118250-A2.
XX
PD 15-MAR-2001.
XX
PF 07-SEP-2000; 2000WO-US024503.
XX
PR 10-SEP-1999; 99US-0153357P.
PR 26-JUL-2000; 2000US-0220947P.
PR 16-AUG-2000; 2000US-0225724P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Lander ES, Gargill M, Ireland JS, Bolk S, Daley GQ, Mccarthy JJ;
XX
DR WPI; 2001-226749/23.
XX
PT Nucleic acids comprising single nucleotide polymorphisms, useful in
PT applications such as forensics, paternity testing, medicine, genetic
PT analysis and phenotype correlations to diseases such as diabetes and
PT atherosclerosis.
XX
PS Example; Page 126; 242pp; English.
XX
CC The present invention provides a method of diagnosing a vascular disease
CC in an individual, involving determining the sequence at various
CC polymorphic sites within the human thrombospondin 1 and thrombospondin 4
CC genes. The sequences at a number of polymorphic sites are also provided
CC in the specification. In particular, the method can be used in the
CC diagnosis of atherosclerosis, myocardial infarction, coronary heart
CC disease, stroke, peripheral vascular diseases, venous thromboembolism and
CC pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also
CC useful in forensics, paternity testing, genetic analysis and phenotype
CC correlations to diseases. The present sequence is an example of one of
CC the human gene SNPS shown in the specification
XX
SQ Sequence 21 BP; 7 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 21;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2697 TTGGAATTGAACTCT 2711
||||| |||| ||||
Db 21 TTGGACTTGACCTCT 7

RESULT 5579
AAF96504
ID AAF96504 standard; DNA; 21 BP.
XX
AC AAF96504;
XX
DT 06-JUN-2001 (first entry)
XX
DE Human gene single nucleotide polymorphism #1265.
XX
KW Human; variant thrombospondin 1; variant thrombospondin 4; SNP;
KW polymorphism; vascular disease; coronary artery disease; forensics;
KW myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
KW pulmonary embolism; paternity test; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Variation replace(11,C)
FT /*tag= a
FT /standard_name= "single nucleotide polymorphism"
XX
PN WO200118250-A2.
XX
PD 15-MAR-2001.
XX
PF 07-SEP-2000; 2000WO-US024503.
XX
PR 10-SEP-1999; 99US-0153357P.
PR 26-JUL-2000; 2000US-0220947P.
PR 16-AUG-2000; 2000US-0225724P.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Lander ES, Gargill M, Ireland JS, Bolk S, Daley GQ, Mccarthy JJ;
XX
DR WPI; 2001-226749/23.
XX
PT Nucleic acids comprising single nucleotide polymorphisms, useful in
PT applications such as forensics, paternity testing, medicine, genetic
PT analysis and phenotype correlations to diseases such as diabetes and
PT atherosclerosis.
XX
PS Example; Page 136; 242pp; English.

XX
PF 24-MAR-1997; 97WO-US004703.
XX
PR 26-MAR-1996; 96US-0014089P.
XX
PA (LYNX-) LYNX THERAPEUTICS INC.
XX
PI Zupi G;
XX
DR WPI; 1997-489662/45.
XX
PT Inhibiting proliferation of human melanoma cells with anti-c-myc
PT oligo:nucleotide(s) - particularly used together with cis-platin,
PT inhibits metastasis, induces regression or prevents further growth.
XX
PS Claim 1; Page 22; 68pp; English.
XX
CC This c-myc oligonucleotide is complementary to a sequence of human c-myc
CC mRNA and is used for inhibiting the proliferation of human melanoma cells
CC (HMC). The c-myc oligonucleotide is at least 10 bases long and inhibits
CC proliferation of HMC by at least 10 percent at 10 mu M, when the cells
CC are cultured at 37 degree. C in presence of serum. The method is
CC particularly used to treat human melanoma, and inhibits metastasis,
CC promotes regression or prevents any increase in tumour mass. The c-myc
CC oligonucleotide can be used together with cis-platin and which then
CC reduces resistance of tumour cells to cis-platin. The oncogene c-myc is
CC found to be essential for growth and metastasis of melanoma, and the c-
CC myc oligonucleotides are designed to target double-stranded DNA or single
CC -stranded RNA. A combination of c-myc oligonucleotide and cis-platin is
CC more effective than either component used alone
XX
SQ Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy        653 GAGAACCTGGGGCTC 667
              ||| ||| |||||||
Db          6 GAGCACCAGGGGCTC 20
```

RESULT 5576
ABZ89225
ID ABZ89225 standard; DNA; 20 BP.
XX
AC ABZ89225;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4467; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 9 A; 1 C; 1 G; 9 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2179 TTTTTTTTAACTTTG 2193
              || |||||||| |||
Db          6 TTATTTTTAACATTG 20
```

RESULT 5577
AAL56640/c
ID AAL56640 standard; DNA; 21 BP.
XX
AC AAL56640;
XX
DT 09-OCT-2003 (first entry)
XX
DE S36 primer to amplify contig 13 of the Escherichia coli genome.
XX
KW Genomics; DNA sequencing; random fragmentation; primer linked fragment;
KW S36; positional amplification; PCR; primer; ss.
XX
OS Escherichia coli.
XX
PN WO2003050242-A2.
XX
PD 19-JUN-2003.
XX
PF 13-NOV-2002; 2002WO-US037322.
XX
PR 13-NOV-2001; 2001US-0338224P.
XX
PA (RUBI-) RUBICON GENOMICS INC.
XX
PI Makarov VL, Sleptsova I, Kamberov E, Bruening E;
XX
DR WPI; 2003-532900/50.
XX
PT Preparing a DNA molecule, useful in genomics, molecular biology and
PT sequencing, comprises attaching a primer having substantially known

PN WO9632966-A1.
XX
PD 24-OCT-1996.
XX
PF 19-APR-1996; 96WO-US005334.
XX
PR 19-APR-1995; 95US-00424991.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Zalewski A, Shi Y;
XX
DR WPI; 1996-485560/48.
XX
PT Use of anti:sense cpds. to inhibit inappropriate synthesis - in tissue of
PT extracellular matrix proteins, particularly collagen, esp. type I and
PT type III.
XX
PS Claim 58; Page 64; 103pp; English.
XX
CC AAT60643, and AAT60647-T60653 represent antisense oligonucleotides
CC specific for a nuclear proto-oncogene. These sequences are used in a
CC composition of the invention, for inhibiting synthesis of extracellular
CC matrix proteins. These sequences can also be used in the methods of the
CC invention. The methods of the invention all involve using at least one of
CC these sequences to prevent or treat a disease. The methods are for
CC preventing failure of a haemodialysis access site (HAS) of a
CC haemodialysis patient, for treating vascular grafts and/or in an ex vivo
CC method for preventing failure of vascular grafts made with veins, and for
CC inhibiting the synthesis of extracellular matrix proteins in a human
CC tissue. Other methods of the invention are for treating sclerotic
CC disorders, for reducing scar formation in a human tissue, and for
CC inhibiting formation of unwanted fibrous connective tissue in a human.
CC The methods relate to the use of certain antisense compounds to inhibit
CC the inappropriate synthesis in a tissue of extracellular matrix proteins,
CC particularly collagen, and more particularly collagens type I and III.
CC The inappropriate and/or excessive synthesis of extracellular matrix
CC proteins can result in medical conditions, including sclerotic disorders,
CC vascular restenosis, or atherosclerosis, atherogenesis, kaloid disease,
CC liver cirrhosis, rheumatical disorders of the joints, loss of
CC arteriovenous and venous graft potency, post-surgical scarring,
CC reconstructive surgery and the like, generally found in human subjects
XX
SQ Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 653 GAGAACCTGGGGCTC 667
||| ||| |||||||
Db 6 GAGCACCAGGGGCTC 20

RESULT 5574
AAT60650
ID AAT60650 standard; DNA; 20 BP.
XX
AC AAT60650;
XX
DT 26-JUN-1997 (first entry)
XX
DE Antisense oligonucleotide #4 targetting nuclear proto-oncogene.
XX
KW Nuclear proto-oncogene; antisense oligonucleotide; inhibitor; collagen;
KW extracellular matrix protein; haemodialysis; vascular graft; therapy;
KW human tissue; sclerotic disorder; scar formation; vascular restenosis;
KW fibrous connective tissue; atherosclerosis; post-surgical scarring;
KW atherogenesis; kaloid disease; liver cirrhosis; rheumatical disorder;
KW reconstructive surgery; ss.
XX
OS Synthetic.
XX

PN WO9632966-A1.
XX
PD 24-OCT-1996.
XX
PF 19-APR-1996; 96WO-US005334.
XX
PR 19-APR-1995; 95US-00424991.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Zalewski A, Shi Y;
XX
DR WPI; 1996-485560/48.
XX
PT Use of anti:sense cpds. to inhibit inappropriate synthesis - in tissue of
PT extracellular matrix proteins, particularly collagen, esp. type I and
PT type III.
XX
PS Disclosure; Page 64; 103pp; English.
XX
CC AAT60643, and AAT60647-T60653 represent antisense oligonucleotides
CC specific for a nuclear proto-oncogene. These sequences are used in a
CC composition of the invention, for inhibiting synthesis of extracellular
CC matrix proteins. These sequences can also be used in the methods of the
CC invention. The methods of the invention all involve using at least one of
CC these sequences to prevent or treat a disease. The methods are for
CC preventing failure of a haemodialysis access site (HAS) of a
CC haemodialysis patient, for treating vascular grafts and/or in an ex vivo
CC method for preventing failure of vascular grafts made with veins, and for
CC inhibiting the synthesis of extracellular matrix proteins in a human
CC tissue. Other methods of the invention are for treating sclerotic
CC disorders, for reducing scar formation in a human tissue, and for
CC inhibiting formation of unwanted fibrous connective tissue in a human.
CC The methods relate to the use of certain antisense compounds to inhibit
CC the inappropriate synthesis in a tissue of extracellular matrix proteins,
CC particularly collagen, and more particularly collagens type I and III.
CC The inappropriate and/or excessive synthesis of extracellular matrix
CC proteins can result in medical conditions, including sclerotic disorders,
CC vascular restenosis, or atherosclerosis, atherogenesis, kaloid disease,
CC liver cirrhosis, rheumatical disorders of the joints, loss of
CC arteriovenous and venous graft potency, post-surgical scarring,
CC reconstructive surgery and the like, generally found in human subjects
XX
SQ Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 653 GAGAACCTGGGGCTC 667
||| ||| |||||||
Db 6 GAGCACCAGGGGCTC 20

RESULT 5575
AAT95343
ID AAT95343 standard; DNA; 20 BP.
XX
AC AAT95343;
XX
DT 20-APR-1998 (first entry)
XX
DE Treatment of human melanoma using c-myc oligonucleotide 10.
XX
KW Melanoma; c-myc oligonucleotide; c-myc mRNA; cis-platin; inhibition;
KW metastasis; treatment; proliferation; human; tumour; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9736005-A1.
XX
PD 02-OCT-1997.

```
CC   occurrence of, and for treating neurodegenerative disease, particularly
CC   Alzheimer's disease. The present sequence is a PCR primer, which was used
CC   in the method of the invention.
XX
SQ   Sequence 20 BP; 1 A; 2 C; 3 G; 14 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 20;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2173 TTTTTTTTTTTTTTA 2187
              ||||||  |||||  ||
Db          2 TTTTTTGTTTTTCTA 16


RESULT 5571
AAQ70719
ID   AAQ70719 standard; DNA; 20 BP.
XX
AC   AAQ70719;
XX
DT   25-MAR-2003  (revised)
DT   22-FEB-1995  (first entry)
XX
DE   C-myc gene antisense oligo.
XX
KW   C-myc; oncogene; smooth muscle; antisense; phosphorothioate;
KW   oligonucleotide; restenosis; ss.
XX
OS   Synthetic.
XX
PN   WO9415646-A1.
XX
PD   21-JUL-1994.
XX
PF   07-JAN-1994;   94WO-US000265.
XX
PR   07-JAN-1993;   93US-00004799.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1994-248909/30.
XX
PT   Use of antisense oligonucleotides specific for c-myc - for modulating the
PT   proliferation of smooth muscle cells, partic. for treating or preventing
PT   restenosis.
XX
PS   Example 12; Page 29; 52pp; English.
XX
CC   An oligonucleotide (AAQ70710) antisense to a segment of human c-myc mRNA
CC   beginning with a translational initiation codon reduced neointima
CC   formation in the coronary vasculature in a pig restenosis model. Activity
CC   was compared to that of antisense oligos (AAQ70715-21) that targeted
CC   other regions of c-myc mRNA. The oligo given in AAQ70719 targeted
CC   nucleotides 1264-1283 of the 5' non-coding region, and provided a similar
CC   degree of growth inhibition as the AAQ70710 oligo. (Updated on 25-MAR-
CC   2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 20;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTC 667
              ||| ||| |||||||
Db          6 GAGCACCAGGGGCTC 20


RESULT 5572
AAQ87813
ID   AAQ87813 standard; DNA; 20 BP.
XX
AC   AAQ87813;
XX
DT   07-DEC-1995  (first entry)
XX
DE   Antisense oligomer to human c-myc DNA (positions 1264-2383).
XX
KW   c-myc; c-myb; procollagen; antisense oligonucleotide; restenosis;
KW   sclerosis; collagen; atherosclerosis; liver cirrhosis; acne; ss.
XX
OS   Synthetic.
XX
PN   WO9510305-A1.
XX
PD   20-APR-1995.
XX
PF   17-OCT-1994;   94WO-US011853.
XX
PR   15-OCT-1993;   93US-00138637.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Zalewski A,  Shi Y;
XX
DR   WPI; 1995-161579/21.
XX
PT   Inhibiting synthesis of extracellular matrix proteins - using anti-sense
PT   oligo-nucleotide(s) directed against proto-oncogene(s), for treating
PT   sclerotic disease, restenosis, inhibiting scar formation, etc.
XX
PS   Claim 34; Page 24; 76pp; English.
XX
CC   This sequence, like sequences AAQ87809-12, is an antisense
CC   oligonucleotide to Human c-myc DNA. The sequence AAQ87814 is an antisense
CC   oligonucleotide to Human c-myb DNA. These oligonucleotides inhibit
CC   secretion of procollagens I and III, in intima, media, adventitia or
CC   connective tissue. This inhibition only occurs when more than one of
CC   these sequences is present. The sequences can be used to treat sclerotic
CC   disorders, to inhibit collagen synthesis in restenosis, or reduction of
CC   scar tissue. Other applications are in treatment of atherosclerosis,
CC   liver cirrhosis, acne, etc
XX
SQ   Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 20;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        653 GAGAACCTGGGGCTC 667
              ||| ||| |||||||
Db          6 GAGCACCAGGGGCTC 20


RESULT 5573
AAT60649
ID   AAT60649 standard; DNA; 20 BP.
XX
AC   AAT60649;
XX
DT   26-JUN-1997  (first entry)
XX
DE   Antisense oligonucleotide #3 targetting nuclear proto-oncogene.
XX
KW   Nuclear proto-oncogene; antisense oligonucleotide; inhibitor; collagen;
KW   extracellular matrix protein; haemodialysis; vascular graft; therapy;
KW   human tissue; sclerotic disorder; scar formation; vascular restenosis;
KW   fibrous connective tissue; atherosclerosis; post-surgical scarring;
KW   atherogenesis; kaloid disease; liver cirrhosis; rheumatical disorder;
KW   reconstructive surgery; ss.
XX
OS   Synthetic.
XX
```

PT hybridize with target.
XX
PS Example 2; SEQ ID NO 555; 423pp; English.
XX
CC The invention relates to a method of predicting the potential of
CC oligonucleotides to hybridise to target nucleotide sequences. The method
CC is useful for predicting the potential of an oligonucleotide to hybridise
CC to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC contains chemically modified nucleotides. The method is also useful for
CC predicting the potential of the oligonucleotides to hybridise to a
CC complementary target nucleotide sequence. The method is useful to predict
CC efficient hybridisation oligonucleotides for each of multiple target
CC sequences therefore very large arrays may be constructed and tested with
CC minimum synthesis of oligonucleotides. The present sequence represents a
CC HIV PRT antisense derived probe.
XX
SQ Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAAA 2797
|| ||||| ||||||
Db 18 TTAAAAAAGAAAAAA 4

RESULT 5569
ADD81481/c
ID ADD81481 standard; DNA; 20 BP.
XX
AC ADD81481;
XX
DT 29-JAN-2004 (first entry)
XX
DE HIV PRT antisense derived probe #410.
XX
KW ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW large array; minimum oligonucleotide synthesis; probe.
XX
OS Human immunodeficiency virus.
XX
PN US2003054346-A1.
XX
PD 20-MAR-2003.
XX
PF 15-FEB-2001; 2001US-00784674.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (SHAN/) SHANNON K W.
PA (WOLB/) WOLBER P K.
PA (DELE/) DELENSTARR G C.
PA (WEBB/) WEBB P G.
PA (KINC/) KINCAID R H.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2003-743746/70.
XX
PT Predicting potential of oligonucleotides to hybridize to target
PT nucleotide sequence comprises determining and evaluating for each
PT oligonucleotide a parameter predictive of the oligonucleotides ability to
PT hybridize with target.
XX
PS Example 2; SEQ ID NO 554; 423pp; English.
XX
CC The invention relates to a method of predicting the potential of
CC oligonucleotides to hybridise to target nucleotide sequences. The method
CC is useful for predicting the potential of an oligonucleotide to hybridise
CC to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC contains chemically modified nucleotides. The method is also useful for
CC predicting the potential of the oligonucleotides to hybridise to a
CC complementary target nucleotide sequence. The method is useful to predict
CC efficient hybridisation oligonucleotides for each of multiple target
CC sequences therefore very large arrays may be constructed and tested with
CC minimum synthesis of oligonucleotides. The present sequence represents a
CC HIV PRT antisense derived probe.
XX
SQ Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAAA 2797
|| ||||| ||||||
Db 19 TTAAAAAAGAAAAAA 5

RESULT 5570
ADE43612
ID ADE43612 standard; DNA; 20 BP.
XX
AC ADE43612;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human KNSL1 sequencing primer, SEQ ID 217.
XX
KW Neurodegenerative disease; uPA; SNCG; IDE; KNSL1; LIPA; TNFRSF6;
KW Alzheimer's disease; neuroprotective; nootropic; gene therapy;
KW Chromosome 10; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003054143-A2.
XX
PD 03-JUL-2003.
XX
PF 25-OCT-2002; 2002WO-US034679.
XX
PR 25-OCT-2001; 2001US-0339525P.
PR 08-NOV-2001; 2001US-0336929P.
PR 08-NOV-2001; 2001US-0338010P.
PR 09-NOV-2001; 2001US-0338363P.
PR 04-DEC-2001; 2001US-0337052P.
PR 28-MAR-2002; 2002US-0368919P.
XX
PA (NEUR-) NEUROGENETICS INC.
PA (GEHO) GEN HOSPITAL CORP.
XX
PI Becker KD, Velicelebi G, Elliott KJ, Wang X, Tanzi RE, Bertram L;
PI Saunders AJ, Mullin KM, Sampson AJ, Blacker DL;
XX
DR WPI; 2003-559131/52.
XX
PT Determining a predisposition for or the occurrence of neurodegenerative
PT disease, e.g. Alzheimer's disease by detecting in a target nucleic acid
PT the presence or absence of an allelic variant of one or more polymorphic
PT regions.
XX
PS Example 3; Page 287; 848pp; English.
XX
CC The present invention relates to a method (M1) for determining a
CC predisposition for or the occurrence of neurodegenerative disease in a
CC subject. The method comprises detecting in a target nucleic acid obtained
CC from the subject the presence or absence of an allelic variant of one or
CC more polymorphic regions of one or more genes selected from uPA
CC (Urokinase plasminogen activator), SNCG (gamma-synuclein), IDE (insulin-
CC degrading enzyme), KNSL1 (Kinesin-like protein 1), LIPA (lysosomal acid
CC lypase), and TNFRSF6 (Tumour Necrosis Factor Receptor-SF6), where the
CC presence of at least one of the allelic variant of one or more
CC polymorphic regions is indicative of a predisposition for or the
CC occurrence of neurodegenerative disease. The genes are all located on
CC chromosome 10. M1 is useful for determining a predisposition for or the

XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 3363; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 11 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1915 CAATACCTTTTTTTT 1929
              |||||| ||| ||||
Db         18 CAATACTTTTATTTT 4
```

RESULT 5567
ADD81483/c
ID ADD81483 standard; DNA; 20 BP.
XX
AC ADD81483;
XX
DT 29-JAN-2004 (first entry)
XX
DE HIV PRT antisense derived probe #412.
XX
KW ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW large array; minimum oligonucleotide synthesis; probe.
XX
OS Human immunodeficiency virus.
XX
PN US2003054346-A1.
XX
PD 20-MAR-2003.
XX
PF 15-FEB-2001; 2001US-00784674.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (SHAN/) SHANNON K W.
PA (WOLB/) WOLBER P K.
PA (DELE/) DELENSTARR G C.
PA (WEBB/) WEBB P G.
PA (KINC/) KINCAID R H.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2003-743746/70.
XX
PT Predicting potential of oligonucleotides to hybridize to target
PT nucleotide sequence comprises determining and evaluating for each
PT oligonucleotide a parameter predictive of the oligonucleotides ability to
PT hybridize with target.
XX
PS Example 2; SEQ ID NO 556; 423pp; English.
XX
CC The invention relates to a method of predicting the potential of
CC oligonucleotides to hybridise to target nucleotide sequences. The method
CC is useful for predicting the potential of an oligonucleotide to hybridise
CC to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC contains chemically modified nucleotides. The method is also useful for
CC predicting the potential of the oligonucleotides to hybridise to a
CC complementary target nucleotide sequence. The method is useful to predict
CC efficient hybridisation oligonucleotides for each of multiple target
CC sequences therefore very large arrays may be constructed and tested with
CC minimum synthesis of oligonucleotides. The present sequence represents a
CC HIV PRT antisense derived probe.
XX
SQ Sequence 20 BP; 3 A; 4 C; 1 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2783 TTGAAAAAAAAAAAA 2797
              || ||||| ||||||
Db         17 TTAAAAAAGAAAAAA 3
```

RESULT 5568
ADD81482/c
ID ADD81482 standard; DNA; 20 BP.
XX
AC ADD81482;
XX
DT 29-JAN-2004 (first entry)
XX
DE HIV PRT antisense derived probe #411.
XX
KW ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW large array; minimum oligonucleotide synthesis; probe.
XX
OS Human immunodeficiency virus.
XX
PN US2003054346-A1.
XX
PD 20-MAR-2003.
XX
PF 15-FEB-2001; 2001US-00784674.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (SHAN/) SHANNON K W.
PA (WOLB/) WOLBER P K.
PA (DELE/) DELENSTARR G C.
PA (WEBB/) WEBB P G.
PA (KINC/) KINCAID R H.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2003-743746/70.
XX
PT Predicting potential of oligonucleotides to hybridize to target
PT nucleotide sequence comprises determining and evaluating for each
PT oligonucleotide a parameter predictive of the oligonucleotides ability to

```
RESULT 5564
AAH80591/c
ID   AAH80591 standard; cDNA; 20 BP.
XX
AC   AAH80591;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 555.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 65; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 20;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAA 2797
              || ||||| ||||||
Db         18 TTAAAAAAGAAAAAA 4


RESULT 5565
AAH80590/c
ID   AAH80590 standard; cDNA; 20 BP.
XX
AC   AAH80590;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 554.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 65; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 20;
  Best Local Similarity   86.7%;  Pred. No. 6.5e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2783 TTGAAAAAAAAAAAA 2797
              || ||||| ||||||
Db         19 TTAAAAAAGAAAAAA 5


RESULT 5566
ABZ88121/c
ID   ABZ88121 standard; DNA; 20 BP.
XX
AC   ABZ88121;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
```

CC of siNA; and vectors that express siNA. The siNAs are used to modulate
CC expression of the c-fos gene in cells, tissue explants or organisms
CC (e.g., by ex vivo gene therapy), or in grafts and transplants for the
CC treatment of a variety of conditions. They may be used for treating
CC central nervous system lesions and injuries (e.g., Alzheimer's disease,
CC Parkinson's disease, Huntington's disease, epilepsy, dementia or
CC amyotrophic lateral sclerosis); various cancers; other proliferative
CC diseases (e.g., restenosis and polycystic kidney disease); inflammatory
CC and/or allergic diseases; viral infections (including HIV infection);
CC autoimmune diseases; and transplant rejection. The siNAs are also useful
CC for drug screening, diagnosis, therapeutic target identification and
CC validation, genetic engineering, pharmacogenomics, studying gene
CC function, and gene mapping (e.g., of single nucleotide polymorphisms).
CC The present sequence represents the lower strand of a human c-fos-
CC targeted double-stranded siNA.
XX
SQ Sequence 19 BP; 14 A; 0 C; 3 G; 0 T; 2 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 19;
Best Local Similarity 80.0%; Pred. No. 6.4e+03;
Matches 12; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1976 TTGAAAAAAAGAAAA 1990
: |||||||| ||||
Db 5 UAGAAAAAAAUAAAA 19

RESULT 5562
AAA50702
ID AAA50702 standard; DNA; 20 BP.
XX
AC AAA50702;
XX
DT 01-SEP-2000 (first entry)
XX
DE Sense strand encoding a topoisomerase type II recognition peptide.
XX
KW Type II topoisomerase; identify; detect; eukaryote; intron; ss.
XX
OS Synthetic.
XX
PN EP997536-A2.
XX
PD 03-MAY-2000.
XX
PF 24-SEP-1999; 99EP-00118075.
XX
PR 24-SEP-1998; 98JP-00270337.
XX
PA (MARI-) MARINE BIOTECHNOLOGY INST CO LTD.
XX
PI Yamamoto S, Atsumi M, Kasai H, Hamada T, Nakamura S;
XX
DR WPI; 2000-295087/26.
XX
PT Identification and detection of eukaryotes by probing an intron-
PT containing region in a type II topisomerase gene.
XX
PS Disclosure; Page 4; 30pp; English.
XX
CC The present invention relates to the identification of a eukaryote based
CC on the sequence of a type II topoisomerase gene intron containing region.
CC The method comprises amplifying the eukaryote DNA by PCR or cDNA cloning,
CC comprising a primer or probe having a nucleotide sequence encoding a
CC specific polypeptide. The present sequence represents a nucleotide
CC sequence encoding a polypeptide recognised by the primers used in the
CC invention. Those peptides used to create primers for use in the method
CC were selected by comparing the amino acid sequences of the type II
CC topoisomerase of organisms belonging to the Animalia, Plantae, Protista
CC and Fungi kingdoms. The regions containing conserved amino acid sequences
CC for the respective eukaryotes were chosen, and included regions with the
CC fewest possible degenerate codons. The method is based on the
CC identification and detection of DNA sequences in introns. These non-
CC coding regions are subject to a faster mutation rate than coding regions
CC and are therefore less conserved, making them very useful in the
CC identification of closely related organisms. The method is useful in the
CC detection and identification of eukaryotes
XX
SQ Sequence 20 BP; 10 A; 0 C; 4 G; 0 T; 0 U; 6 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 66.7%; Pred. No. 6.5e+03;
Matches 10; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAA 2800
||:||:||:|| ||:
Db 1 AARAARAARAAYAAR 15

RESULT 5563
AAH80592/c
ID AAH80592 standard; cDNA; 20 BP.
XX
AC AAH80592;
XX
DT 11-SEP-2003 (revised)
DT 19-SEP-2001 (first entry)
XX
DE Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 556.
XX
KW Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW disease diagnosis; ss.
XX
OS Human immunodeficiency virus 1.
XX
PN US6251588-B1.
XX
PD 26-JUN-2001.
XX
PF 10-FEB-1998; 98US-00021701.
XX
PR 10-FEB-1998; 98US-00021701.
XX
PA (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters.
XX
PS Example 2; Col 65; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
CC (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ Sequence 20 BP; 3 A; 4 C; 1 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 20;
Best Local Similarity 86.7%; Pred. No. 6.5e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2783 TTGAAAAAAAAAAAA 2797
|| ||||| ||||||
Db 17 TTAAAAAAGAAAAAA 3

```
DE   Human c-fos transcript target sequence/siNA upper strand, SEQ ID NO:111.
XX
KW   RNA interference; short interfering nucleic acid; siNA;
KW   short interfering RNA; siRNA; double-stranded RNA; micro-RNA; miRNA;
KW   short hairpin RNA; shRNA; expression modulation; gene therapy;
KW   drug screening; diagnosis; therapeutic target identification;
KW   pharmacogenomics; gene function analysis; gene mapping;
KW   central nervous system disorder; Alzheimer's disease;
KW   Parkinson's disease; Huntington's disease; epilepsy; dementia;
KW   amyotrophic lateral sclerosis; cancer; proliferative disease; restenosis;
KW   polycystic kidney disease; inflammatory disease; allergic disease;
KW   viral infection; HIV infection; autoimmune disease; transplant rejection;
KW   vasotropic; nootropic; antiparkinsonian; neuroprotective; cytostatic;
KW   antiinflammatory; antiallergic; virucide; anti-HIV; immunosuppressive;
KW   anticonvulsant; nephrotropic; human; c-fos; target sequence; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003070914-A2.
XX
PD   28-AUG-2003.
XX
PF   20-FEB-2003; 2003WO-US005162.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L;
XX
DR   WPI; 2003-679877/64.
XX
PT   New short interfering nucleic acid downregulates expression of the c-fos
PT   gene useful for treatment and diagnosis of diseases, e.g. cancer and
PT   inflammation.
XX
PS   Example 3; SEQ ID NO 111; 145pp; English.
XX
CC   The invention relates to short interfering nucleic acids (siNA) which
CC   downregulate expression of the human c-fos gene by RNA interference. The
CC   siNAs may or may not comprise ribonucleotides and may be double or single
CC   stranded. They further comprise sense and antisense regions, or
CC   alternatively are assembled from a sense oligonucleotide and an antisense
CC   oligonucleotide. Specifically, the siNAs include short interfering RNA
CC   (siRNA), double-stranded RNA, micro-RNA (miRNA) and short hairpin RNA
CC   (shRNA). The siNAs can be unmodified or chemically modified, can contain
CC   deoxyribonucleotides, and can be chemically synthesised, expressed from a
CC   vector or enzymatically synthesised. The invention also relates to kits
CC   for the in vitro or in vivo delivery of siNA; conjugates and/or complexes
CC   of siNA; and vectors that express siNA. The siNAs are used to modulate
CC   expression of the c-fos gene in cells, tissue explants or organisms
CC   (e.g., by ex vivo gene therapy), or in grafts and transplants for the
CC   treatment of a variety of conditions. They may be used for treating
CC   central nervous system lesions and injuries (e.g., Alzheimer's disease,
CC   Parkinson's disease, Huntington's disease, epilepsy, dementia or
CC   amyotrophic lateral sclerosis); various cancers; other proliferative
CC   diseases (e.g., restenosis and polycystic kidney disease); inflammatory
CC   and/or allergic diseases; viral infections (including HIV infection);
CC   autoimmune diseases; and transplant rejection. The siNAs are also useful
CC   for drug screening, diagnosis, therapeutic target identification and
CC   validation, genetic engineering, pharmacogenomics, studying gene
CC   function, and gene mapping (e.g., of single nucleotide polymorphisms).
CC   The present sequence represents the upper strand of a human c-fos-
CC   targeted double-stranded siNA, which is identical to the c-fos transcript
CC   target sequence.
XX
SQ   Sequence 19 BP; 2 A; 3 C; 0 G; 0 T; 14 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 19;
  Best Local Similarity   86.7%;  Pred. No. 6.4e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1976 TTGAAAAAAAGAAAA 1990
              | ||||||||| ||||
Db         15 TAGAAAAAAATAAAA 1

RESULT 5561
ADE65772
ID   ADE65772 standard; RNA; 19 BP.
XX
AC   ADE65772;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human c-fos siNA lower strand, SEQ ID NO:227.
XX
KW   RNA interference; short interfering nucleic acid; siNA;
KW   short interfering RNA; siRNA; double-stranded RNA; micro-RNA; miRNA;
KW   short hairpin RNA; shRNA; expression modulation; gene therapy;
KW   drug screening; diagnosis; therapeutic target identification;
KW   pharmacogenomics; gene function analysis; gene mapping;
KW   central nervous system disorder; Alzheimer's disease;
KW   Parkinson's disease; Huntington's disease; epilepsy; dementia;
KW   amyotrophic lateral sclerosis; cancer; proliferative disease; restenosis;
KW   polycystic kidney disease; inflammatory disease; allergic disease;
KW   viral infection; HIV infection; autoimmune disease; transplant rejection;
KW   vasotropic; nootropic; antiparkinsonian; neuroprotective; cytostatic;
KW   antiinflammatory; antiallergic; virucide; anti-HIV; immunosuppressive;
KW   anticonvulsant; nephrotropic; human; c-fos; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003070914-A2.
XX
PD   28-AUG-2003.
XX
PF   20-FEB-2003; 2003WO-US005162.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (SIRN-) SIRNA THERAPEUTICS INC.
XX
PI   Mcswiggen J,  Beigelman L;
XX
DR   WPI; 2003-679877/64.
XX
PT   New short interfering nucleic acid downregulates expression of the c-fos
PT   gene useful for treatment and diagnosis of diseases, e.g. cancer and
PT   inflammation.
XX
PS   Example 3; SEQ ID NO 227; 145pp; English.
XX
CC   The invention relates to short interfering nucleic acids (siNA) which
CC   downregulate expression of the human c-fos gene by RNA interference. The
CC   siNAs may or may not comprise ribonucleotides and may be double or single
CC   stranded. They further comprise sense and antisense regions, or
CC   alternatively are assembled from a sense oligonucleotide and an antisense
CC   oligonucleotide. Specifically, the siNAs include short interfering RNA
CC   (siRNA), double-stranded RNA, micro-RNA (miRNA) and short hairpin RNA
CC   (shRNA). The siNAs can be unmodified or chemically modified, can contain
CC   deoxyribonucleotides, and can be chemically synthesised, expressed from a
CC   vector or enzymatically synthesised. The invention also relates to kits
CC   for the in vitro or in vivo delivery of siNA; conjugates and/or complexes
```

```
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO). The
CC   nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC   an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC   with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC   of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC   Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC   the cell and treat a patient having a condition associated with the level
CC   of CD20. The treatment may further comprise the use of one or more
CC   therapies. In particular, the CD20 targetting nucleic acid may be used to
CC   treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC   Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC   leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC   lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC   immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC   targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC   presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC   nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC   cell and treat a patient having a condition associated with the level of
CC   NOGO. The treatment may further comprise the use of one or more
CC   therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC   treat central nervous system (CNS) injury and cerebrovascular accident
CC   (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The present
CC   sequence is an inozyme of the invention
XX
SQ   Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 17;
  Best Local Similarity   86.7%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        288 GCCCCGCGCCACCCC 302
              ||||| | |||||||
Db          2 GCCCCCCUCCACCCC 16


RESULT 5559
ABK00049
ID   ABK00049 standard; RNA; 17 BP.
XX
AC   ABK00049;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Hammerhead Ribozyme #49.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US004273.
XX
PR   11-FEB-2000; 2000US-0181797P.
PR   28-FEB-2000; 2000US-0185516P.
PR   06-MAR-2000; 2000US-0187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  Mcswiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT   central nervous system injury.
XX
PS   Claim 88; Page 66; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO). The
CC   nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC   an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC   with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC   of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC   Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC   the cell and treat a patient having a condition associated with the level
CC   of CD20. The treatment may further comprise the use of one or more
CC   therapies. In particular, the CD20 targetting nucleic acid may be used to
CC   treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC   Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC   leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC   lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC   immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC   targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC   presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC   nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC   cell and treat a patient having a condition associated with the level of
CC   NOGO. The treatment may further comprise the use of one or more
CC   therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC   treat central nervous system (CNS) injury and cerebrovascular accident
CC   (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The present
CC   sequence is a hammerhead ribozyme of the invention
XX
SQ   Sequence 17 BP; 1 A; 12 C; 3 G; 0 T; 1 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 17;
  Best Local Similarity   86.7%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        288 GCCCCGCGCCACCCC 302
              ||||| | |||||||
Db          1 GCCCCCCUCCACCCC 15


RESULT 5560
ADE65656/c
ID   ADE65656 standard; RNA; 19 BP.
XX
AC   ADE65656;
XX
DT   29-JAN-2004  (first entry)
XX
```

```
ABK00932
ID   ABK00932 standard; RNA; 17 BP.
XX
AC   ABK00932;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Inozyme #202.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US004273.
XX
PR   11-FEB-2000; 2000US-0181797P.
PR   28-FEB-2000; 2000US-0185516P.
PR   06-MAR-2000; 2000US-0187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  Mcswiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT   central nervous system injury.
XX
PS   Claim 88; Page 81; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO). The
CC   nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC   an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC   with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC   of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC   Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC   the cell and treat a patient having a condition associated with the level
CC   of CD20. The treatment may further comprise the use of one or more
CC   therapies. In particular, the CD20 targetting nucleic acid may be used to
CC   treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC   Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC   leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC   lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC   immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC   targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC   presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC   nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC   cell and treat a patient having a condition associated with the level of
CC   NOGO. The treatment may further comprise the use of one or more
CC   therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC   treat central nervous system (CNS) injury and cerebrovascular accident
CC   (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The present
CC   sequence is an inozyme of the invention
XX
SQ   Sequence 17 BP; 1 A; 13 C; 2 G; 0 T; 1 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 17;
  Best Local Similarity   86.7%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        288 GCCCCGCGCCACCCC 302
              ||||| | |||||||
Db          3 GCCCCCCUCCACCCC 17


RESULT 5558
ABK00933
ID   ABK00933 standard; RNA; 17 BP.
XX
AC   ABK00933;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Inozyme #203.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US004273.
XX
PR   11-FEB-2000; 2000US-0181797P.
PR   28-FEB-2000; 2000US-0185516P.
PR   06-MAR-2000; 2000US-0187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  Mcswiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT   central nervous system injury.
XX
PS   Claim 88; Page 81; 200pp; English.
XX
```

XX
DT 12-MAR-2002 (first entry)
XX
DE Human CD20 Hammerhead ribozyme #90.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 30; Page 141; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a hammerhead ribozyme of the invention
XX
SQ Sequence 17 BP; 7 A; 2 C; 0 G; 0 T; 8 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 17;
Best Local Similarity 33.3%; Pred. No. 5.9e+03;
Matches 5; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

Qy 2469 TTAATATTAACTTTT 2483
::||:|::|| :::
Db 2 UUAAUAUUAAAAUUU 16

RESULT 5556
AAF03220/c
ID AAF03220 standard; DNA; 17 BP.
XX
AC AAF03220;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #1515.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US009721.
XX
PR 12-APR-1999; 99US-0129390P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, Mcswiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor protein,
PT interferon alpha and erythropoietin.
XX
PS Claim 37; Page 90; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC Inhibition of the repressors removes prevents inhibition (and
CC consequently increases expression of) genes involved in the production of
CC erythropoietin, granulocyte colony stimulating factor protein and
CC interferon alpha
XX
SQ Sequence 17 BP; 3 A; 1 C; 0 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 17;
Best Local Similarity 86.7%; Pred. No. 5.9e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAA 2800
||||||||||| ||
Db 17 AAAAAAAAAAATTAA 3

RESULT 5557

OS Homo sapiens.
XX
PN WO9715662-A2.
XX
PD 01-MAY-1997.
XX
PF 25-OCT-1996; 96WO-US017480.
XX
PR 26-OCT-1995; 95US-0005974P.
PR 11-JAN-1996; 96US-00584040.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (CHIR) CHIRON CORP.
XX
PI Pavco P, Mcswiggen J, Stinchcomb D, Escobedo J;
XX
DR WPI; 1997-259017/23.
XX
PT Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT rheumatoid arthritis, etc., in a human patient.
XX
PS Claim 4; Page 68; 218pp; English.
XX
CC The present invention describes nucleic acid molecules which modulate the
CC synthesis, expression and/or stability of a mRNA encoding 1 or more
CC receptors of vascular endothelial growth factor (VEGF). A patient
CC (preferably human) having a condition associated with the level of the
CC fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC treated by administering the nucleic acid molecule or the expression
CC vector to the patient. AAX67275 to AAX75752 represent specific examples
CC of nucleic acid molecules from the present invention
XX
SQ Sequence 17 BP; 2 A; 2 C; 1 G; 0 T; 12 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 17;
Best Local Similarity 86.7%; Pred. No. 5.9e+03;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy       2782 ATTGAAAAAAAAAAA 2796
              | | ||||||||||||
Db         16 AGTCAAAAAAAAAAA 2
```

RESULT 5554
ABK02792
ID ABK02792 standard; RNA; 17 BP.
XX
AC ABK02792;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human CD20 Hammerhead ribozyme #91.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 30; Page 141; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC treat central nervous system (CNS) injury and cerebrovascular accident
CC (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The present
CC sequence is a hammerhead ribozyme of the invention
XX
SQ Sequence 17 BP; 7 A; 2 C; 0 G; 0 T; 8 U; 0 Other;

Query Match 0.4%; Score 11.8; DB 1; Length 17;
Best Local Similarity 33.3%; Pred. No. 5.9e+03;
Matches 5; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

```
Qy       2469 TTAATATTAACTTTT 2483
              ::||:|::||  :::
Db          1 UUAAUAUUAAAAUUU 15
```

RESULT 5555
ABK02791
ID ABK02791 standard; RNA; 17 BP.
XX
AC ABK02791;

```
CC   blood coagulation factor VIII protein of the invention.
XX
SQ   Sequence 25 BP; 1 A; 8 C; 8 G; 8 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        607 CCTGCTGCTGCC 618
              ||||||||||||
Db          8 CCTGCTGCTGCC 19


RESULT 5551
AAX69437/c
ID   AAX69437 standard; RNA; 17 BP.
XX
AC   AAX69437;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #732.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 68; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 1 A; 2 C; 2 G; 0 T; 12 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 17;
  Best Local Similarity   86.7%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        2782 ATTGAAAAAAAAAAA 2796
               | | ||||||||||||
Db          17 AGTCAAAAAAAAAAA 3


RESULT 5552
AAF06380/c
ID   AAF06380 standard; DNA; 17 BP.
XX
AC   AAF06380;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3177.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 42; Page 128; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 0 T; 13 U; 0 Other;

  Query Match             0.4%;  Score 11.8;  DB 1;  Length 17;
  Best Local Similarity   86.7%;  Pred. No. 5.9e+03;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        2779 AGAATTGAAAAAAAA 2793
               | |||| ||||||||
Db          16 AAAATTAAAAAAAAA 2


RESULT 5553
AAX69438/c
ID   AAX69438 standard; RNA; 17 BP.
XX
AC   AAX69438;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #733.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumcur angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
```

```
PN   US5962332-A.
XX
PD   05-OCT-1999.
XX
PF   11-DEC-1995;   95US-00570155.
XX
PR   17-MAR-1994;   94US-00214823.
PR   07-MAR-1995;   95US-00399499.
XX
PA   (UYMA-) UNIV MASSACHUSETTS.
XX
PI   Taneja KL,  Singer RH;
XX
DR   WPI; 1999-579615/49.
XX
PT   Detection of trinucleotide repeats.
XX
PS   Disclosure; Col 20; 18pp; English.
XX
CC   This oligonucleotides is targeted to the CGG trinucleotide repeats found
CC   in the FMR1 gene. Excessive numbers of the trinucleotide repeats in the
CC   FMR1 gene leads to the disease Fragile X syndrome. This sequence is used
CC   as an antisense oligonucleotide probe for the hybridisation reaction. The
CC   invention relates to a method for the detection of trinucleotide repeat
CC   expansion, e.g. in the FMR1 gene or Mt-PK gene (leading to myotonic
CC   dystrophy) by in situ hybridization
XX
SQ   Sequence 24 BP; 0 A; 14 C; 6 G; 2 T; 0 U; 2 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 24;
  Best Local Similarity   71.4%;  Pred. No. 6.1e+03;
  Matches   15;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy        415 CGCCGCCGCCATCAACCCCCT 435
              ||||||||||  |  | || |
Db          4 CGCCGCCGCCGCCGCCGCCNT 24


RESULT 5549
AAC91733/c
ID   AAC91733 standard; DNA; 24 BP.
XX
AC   AAC91733;
XX
DT   27-MAR-2001  (first entry)
XX
DE   Human pollinosis-associated gene 787 RACE PCR primer, SEQ ID NO:17.
XX
KW   Human; pollinosis-associated gene 787; pollen allergy; T-cell;
KW   reduced expression; detection; diagnosis; drug screening;
KW   allergic disease; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200073440-A1.
XX
PD   07-DEC-2000.
XX
PF   18-MAY-2000; 2000WO-JP003192.
XX
PR   27-MAY-1999;   99JP-00148785.
XX
PA   (GENO-) GENOX RES INC.
PA   (EISA ) EISAI CO LTD.
XX
PI   Nagasu T,  Sugita Y,  Kashiwabara T,  Oshida T,  Obayashi M,  Gunji S;
PI   Obayashi I,  Imai Y,  Yoshida N,  Ogawa K,  Matsui K,  Takahashi E;
PI   Yokoi A;
XX
DR   WPI; 2001-032159/04.
XX
PT   Pollinosis-associated gene 787 undergoing significantly low expression in
PT   subjects after pollen scattering, useful in diagnosis of allergic
PT   diseases and screening candidate compounds to regulate response of T
PT   cells to antigen stimulus.
XX
PS   Example 12; Page 26-27; 54pp; Japanese.
XX
CC   The invention relates to the human pollinosis-associated gene 787 which
CC   exhibits significantly reduced expression in the T-cells of individuals
CC   after the pollen-scattering season, relative to expression levels in T-
CC   cells before the pollen-scattering season. The gene was isolated from T-
CC   cells from individuals allergic to pollen using the differential display
CC   method. The invention also relates to pollinosis-associated gene 787
CC   primers and probes; methods of detection of pollinosis-associated gene
CC   787 nucleic acids; and a method of diagnosis of allergic diseases via the
CC   detection of pollinosis-associated gene 787 nucleic acids. The invention
CC   additionally encompasses a method of screening drug candidates for the
CC   treatment of allergic disease by measuring the expression of pollinosis-
CC   associated gene 787 in pollen antigen-stimulated T-cells in the presence
CC   of a test compound relative to a control. Pollinosis- associated gene 787
CC   is useful in the diagnosis of allergic diseases and in the screening of
CC   drug candidates for the treatment of such diseases. The present sequence
CC   represents a PCR primer used in the isolation of human pollinosis-
CC   associated gene 787 cDNA
XX
SQ   Sequence 24 BP; 5 A; 10 C; 2 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 24;
  Best Local Similarity   75.0%;  Pred. No. 6.1e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       1494 AGAAAATGGAGAAACACAGG 1513
              ||| | ||||||  || |||
Db         23 AGAGAGTGGAGATTCAGAGG 4


RESULT 5550
ADE64628
ID   ADE64628 standard; DNA; 25 BP.
XX
AC   ADE64628;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Recombinant blood coagulation factor VIII protein related oligo #34.
XX
KW   blood coagulation factor VIII; type-A haemophilia; ss.
XX
OS   Unidentified.
XX
PN   CN1361178-A.
XX
PD   31-JUL-2002.
XX
PF   29-DEC-2000; 2000CN-00137779.
XX
PR   29-DEC-2000; 2000CN-00137779.
XX
PA   (SHAN-) SHANGHAI BIO-CHEM INST CHINESE ACAD SCI.
XX
PI   Qi Z,  Wang Q,  Chen C;
XX
DR   WPI; 2002-741852/81.
XX
PT   New recombinant blood coagulation factor VIII and its production process
PT   and medicinal composition.
XX
PS   Example 6; Page 18 (disclosure); 31pp; Chinese.
XX
CC   The invention relates to a novel recombinant blood coagulation factor
CC   VIII, its production process and its medicinal composite for treating
CC   type-A haemophilia. The invention further comprises a medicinal
CC   composition containing the blood coagulation factor which promotes blood
CC   coagulation to the blood plasma of type-A haemophilia patients. This
CC   polynucleotide sequence represents an oligo relating to the recombinant
```

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KW   adipocyte complement-related C1q tumour necrosis factor; out at first;
KW   beta adrenergic receptor kinase; EphA6/ehk-2; glucose transporter;
KW   type 1a membrane sushi-containing domain; butyrophilin;
KW   type 1a membrane-sushi domain containing; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200257453-A2.
XX
PD   25-JUL-2002.
XX
PF   19-DEC-2001; 2001WO-US050331.
XX
PR   19-DEC-2000; 2000US-0256704P.
PR   20-DEC-2000; 2000US-0257314P.
PR   02-MAY-2001; 2001US-0288153P.
PR   29-MAY-2001; 2001US-0294075P.
PR   24-JUL-2001; 2001US-0307506P.
PR   10-AUG-2001; 2001US-0311590P.
PR   10-AUG-2001; 2001US-0311613P.
PR   29-AUG-2001; 2001US-0315617P.
PR   14-SEP-2001; 2001US-0322358P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Gangolli EA,  Patturajan M,  Vernet CAM,  Malyankar UM,  Kekuda R;
PI   Stone DJ,  Anderson D,  Shimkets RA,  Burgess CE,  Zerhusen BD,  Liu X;
PI   Spytek KA,  Casman SJ,  Boldog FL,  Smithson G,  Li L,  Ji W;
XX
DR   WPI; 2002-590744/63.
XX
PT   Novel isolated NOVX polypeptide useful for treating cardiomyopathy,
PT   atherosclerosis, metabolic disorders, diabetes, obesity, infectious
PT   disease, anorexia, neurodegenerative disorders, Alzheimer's disease or
PT   cancer.
XX
PS   Example 2; Page 259; 318pp; English.
XX
CC   The present invention relates to new NOVX polypeptides. The invention is
CC   useful for treating or preventing a NOVX-associated disorder such as
CC   cardiomyopathy or atherosclerosis, where the disorder is related to cell
CC   signal processing and metabolic pathway modulation in a subject,
CC   preferably human. The invention is also useful for treating metabolic
CC   disorders (e.g. obesity), diabetes, infectious disease, neurodegenerative
CC   disorders (e.g. Alzheimer's disease, Parkinson's disease), immune
CC   disorders, haematopoietic disorders and various cancers. The molecules of
CC   the invention are also useful for treating or preventing cirrhosis,
CC   pancreatitis, learning and memory defects, infertility, congenital heart
CC   defects, acne, hair growth, pigmentation disorders, endocrine disorders,
CC   respiratory disease, gastro-intestinal diseases, reproductive, health,
CC   neurological diseases, bone marrow transplantation, endocrine diseases,
CC   allergy and inflammation, nephrological disorders, urinary system
CC   disorders, neuropsychiatric disorders and age-related disorders. The
CC   present nucleic acid sequence represents a PCR primer that was used in
CC   the methods of the invention to amplify NOVX proteins
XX
SQ   Sequence 22 BP; 6 A; 4 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 22;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       1042 GAGGCGGAAAGCCGCTCATG 1061
                ||| ||  ||| |||||||
Db          3 GAGTAGGTCAGCTGCTCATG 22


RESULT 5547
ABL51554/c
ID   ABL51554 standard; DNA; 23 BP.
XX
AC   ABL51554;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human NSAID regulated gene INDO29 antisense PCR primer SEQ ID NO:5.
XX
KW   Human; NAG-1; NSAID associated gene; nonsteroidal anti-inflammatory drug;
KW   promoter; MIC-1; macrophage inhibitory cytokine-1; cytostatic; cancer;
KW   anticancer; NSAID regulated gene; INDO29; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200220759-A2.
XX
PD   14-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US027544.
XX
PR   08-SEP-2000; 2000US-0231246P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Eling TE,  Baek SJ;
XX
DR   WPI; 2002-362249/39.
XX
PT   New non-steroidal anti-inflammatory drug activated gene with anti-
PT   tumorigenic properties, useful in drug screening, particularly for
PT   identifying and characterizing agents or compounds having anti-cancer
PT   properties.
XX
PS   Example 1; Page 34; 67pp; English.
XX
CC   The present invention describes an isolated and purified non-steroidal
CC   anti-inflammatory drug activated gene (NSAID associated gene, also
CC   designated NAG-1), which comprises a 8902 base pair sequence (I). (I) has
CC   cytostatic activity. (I) is useful in drug screening, particularly for
CC   identifying and characterising agents that are agonistic or antagonistic
CC   to the activation of the promoter region of the NAG-1 gene, the
CC   activation of which is correlated with the apoptotic elimination of
CC   certain cancers. In particular, the DNA is useful for identifying
CC   compounds having anti-cancer properties. NAG-1 peptides encoded by (I)
CC   are useful for treating cancer. The NAG-1 gene given in the present
CC   invention, having Genbank accession number AF019770, is designated as
CC   human macrophage inhibitory cytokine-1 (MIC-1). The present sequence
CC   represents a PCR primer for a human NSAID regulated gene designated
CC   INDO29, which is used in an example from the present invention
XX
SQ   Sequence 23 BP; 6 A; 6 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 23;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        465 AGCAGGCCTGGCCCGGCCGC 484
              ||||| ||||| ||  || |
Db         22 AGCAGTCCTGGTCCTTCCAC 3


RESULT 5548
AAZ24998
ID   AAZ24998 standard; DNA; 24 BP.
XX
AC   AAZ24998;
XX
DT   24-DEC-1999  (first entry)
XX
DE   Antisense probe to Fragile X syndrome gene.
XX
KW   Trinucleotide repeat; myotonic-protein kinase; myotonic dystrophy; probe;
KW   in situ hybridisation; detection; expansion; Fragile X syndrome; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
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```
CC   (orange) which involves extracting DNA from the sample, carrying out an
CC   amplification reaction using primers which are able to amplify a region
CC   of DNA comprising part of the C. reticulata 1120 bp sequence given in the
CC   specification, but not the corresponding part of the C. sinensis 1140 bp
CC   sequence also given in the specification, and detecting the presence of
CC   amplified product. This method can be used for detecting or identifying
CC   plants or plant derived material within food products. It can be used to
CC   detect certain fruit species in particular citrus fruits such as
CC   mandarin, e.g. within fruit containing food products or juice products,
CC   or particular oil components such as olive oil, to determine the
CC   authenticity of the products. The analysis by PCR amplification and
CC   restriction fragment length polymorphism (RFLP) analysis of chloroplast
CC   DNA can be used to distinguish between closely related plant species,
CC   including species which are closely related
XX
SQ   Sequence 22 BP; 14 A; 1 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 6.3e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1496 AAAATGGAGAAA 1507
             ||||||||||||
Db         11 AAAATGGAGAAA 22


RESULT 5544
AAQ90036/c
ID   AAQ90036 standard; cDNA to mRNA; 22 BP.
XX
AC   AAQ90036;
XX
DT   03-JAN-1996  (first entry)
XX
DE   Human SMP30 gene PCR primer.
XX
KW   SMP30; marker protein; ageing; organ development; ss.
XX
OS   Homo sapiens.
XX
PN   JP07097399-A.
XX
PD   11-APR-1995.
XX
PF   29-SEP-1993;   93JP-00265681.
XX
PR   29-SEP-1993;   93JP-00265681.
XX
PA   (FJRE ) FUJI REBIO KK.
XX
DR   WPI; 1995-175363/23.
XX
PT   Novel polypeptide for detecting human ageing marker protein SMP30 - for
PT   monitoring liver and kidney development in new-born babies.
XX
PS   Example 2; Page 5; 10pp; Japanese.
XX
CC   AAQ90036-Q90039 are PCR primers used to produce the SMP30 gene
CC   (AAQ90035). which encodes the human ageing marker protein, SMP30
CC   (AAR74219). Human SMP30 is found in human organs, tissues, blood, urine
CC   and cerebrospinal fluid. The blood concentration of SMP30 is known to
CC   increase with renal and hepatic deficiencies and to decrease with age. It
CC   is therefore useful in the monitoring of renal or hepatic deficiencies
CC   and for the monitoring of the development of the liver and kidneys in
CC   newborn babies
XX
SQ   Sequence 22 BP; 1 A; 4 C; 5 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 6.3e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAA 2797
             ||||||||||||
Db         22 AAAAAAAAAAAA 11


RESULT 5545
AAT62686/c
ID   AAT62686 standard; DNA; 22 BP.
XX
AC   AAT62686;
XX
DT   28-MAY-1997  (first entry)
XX
DE   Primer for human senility marker protein gene amplification.
XX
KW   SMP30; senility marker protein; monoclonal antibody; detection; primer;
KW   polymerase chain reaction; PCR; ss.
XX
OS   Synthetic.
XX
PN   JP08319298-A.
XX
PD   03-DEC-1996.
XX
PF   25-MAY-1995;   95JP-00149791.
XX
PR   25-MAY-1995;   95JP-00149791.
XX
PA   (FJRE ) FUJI REBIO KK.
XX
DR   WPI; 1997-073109/07.
XX
PT   Anti-human senility marker protein monoclonal antibody - useful for
PT   detection of protein.
XX
PS   Disclosure; Page 5; 8pp; Japanese.
XX
CC   AAT62686-89 are primers used to amplify the human senility marker protein
CC   (hSMP30) gene. hSMP30 (AAW14475) has a molecular weight of 30 kDa.
CC   Monoclonal antibodies recognising hSMP30 are claimed and can be used in a
CC   method for detection of the hSMP30 protein in a sample
XX
SQ   Sequence 22 BP; 1 A; 4 C; 5 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 6.3e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAA 2797
             ||||||||||||
Db         22 AAAAAAAAAAAA 11


RESULT 5546
ABS52173
ID   ABS52173 standard; DNA; 22 BP.
XX
AC   ABS52173;
XX
DT   05-NOV-2002  (first entry)
XX
DE   Human forward primer Ag781.
XX
KW   Human; NOVX; NOVX-associated disorder; cardiomyopathy; atherosclerosis;
KW   cell signal processing; metabolic pathway modulation; metabolic disorder;
KW   obesity; diabetes; infectious disease; neurodegenerative disorder; acne;
KW   Alzheimer's disease; Parkinson's disease; immune disorder; cancer;
KW   haematopoietic disorder; cirrhosis; pancreatitis; learning defect;
KW   memory defect; infertility; congenital heart defect; hair growth;
KW   pigmentation disorder; endocrine disorder; respiratory disease; health;
KW   gastro-intestinal disease; reproductive; neurological disease;
KW   bone marrow transplantation; endocrine disease; allergy; inflammation;
KW   nephrological disorder; urinary system disorder; age-related disorder;
KW   neuropsychiatric disorder; EGF-related protein; SCUBE1; TEN-M4;
```

```
CC   syncytial virus, hepatitis B virus, human cytomegalovirus and HTLV I and
CC   II
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        291 CCGCGCCACCCCTCTCCCAC 310
              || | ||||||| |  ||||
Db         21 CCCCCCCACCCCCCAACCAC 2


RESULT 5542
ADA26144/c
ID   ADA26144 standard; RNA; 21 BP.
XX
AC   ADA26144;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human REL-A short interfering nucleic acid SEQ ID NO:279.
XX
KW   short interfering nucleic acid; siNA; nuclear factor kappa B; NF-kappaB;
KW   RNA interference; vasotropic; nootropic; antiparkinsonian;
KW   neuroprotective; cytostatic; antiinflammatory; antiallergic; virucide;
KW   anti-HIV; immunosuppressive; anticonvulsant; nephrotropic; gene therapy;
KW   modulation; inhibition; restenosis; central nervous system lesion;
KW   Alzheimer's disease; Parkinson's disease; Huntington's disease; epilepsy;
KW   dementia; amyotrophic lateral sclerosis; cancer;
KW   polycystic kidney disease; inflammatory disease; allergic disease;
KW   viral infection; HIV; autoimmune disease; transplant rejection; ribozyme;
KW   human; v-rel reticuloendotheliosis viral oncogene homologue A; REL-A;
KW   nuclear factor; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO2003070970-A2.
XX
PD   28-AUG-2003.
XX
PF   20-FEB-2003; 2003WO-US004951.
XX
PR   20-FEB-2002; 2002US-0358580P.
PR   11-MAR-2002; 2002US-0363124P.
PR   06-JUN-2002; 2002US-0386782P.
PR   29-AUG-2002; 2002US-0406784P.
PR   05-SEP-2002; 2002US-0408378P.
PR   09-SEP-2002; 2002US-0409293P.
PR   15-JAN-2003; 2003US-0440129P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J,  Beigelman L;
XX
DR   WPI; 2003-689788/65.
XX
PT   New short interfering nucleic acid downregulates expression of the NF-
PT   kappaB gene useful e.g. for treatment and diagnosis of cancer and
PT   inflammation.
XX
PS   Example 3; Page 131; 149pp; English.
XX
CC   The present invention describes a short interfering nucleic acid (siNA)
CC   that downregulates expression of a nuclear factor kappa B (NF-kappaB)
CC   gene by RNA interference. Also described: (1) kits for in vitro or in
CC   vivo delivery of siNA; (2) conjugates and/or complexes of siNA; and (3)
CC   vectors that express siNA. The siNAs have vasotropic, nootropic,
CC   antiparkinsonian, neuroprotective, cytostatic, antiinflammatory,
CC   antiallergic, virucide, anti-HIV, immunosuppressive, anticonvulsant and
CC   nephrotropic activities, and can be used in gene therapy, and for the
CC   modulation (inhibition) of expression or activity of NF-kappaB by RNA
CC   interference (siNA target mRNA, RNA splice variants, post-
CC   transcriptionally modified RNA, pre-RNA and/or RNA templates). The siNA
CC   sequences can be used to modulate expression of NF-kappaB genes, in
CC   cells, tissue explants or organisms, e.g. by ex vivo gene therapy, in
CC   grafts and transplants for treating restenosis and central nervous system
CC   lesions and injuries (Alzheimer's, Parkinson's or Huntington's diseases,
CC   epilepsy, dementia or amyotrophic lateral sclerosis) or for treating many
CC   cancers, other proliferative diseases (restenosis and polycystic kidney
CC   disease), inflammatory and/or allergic diseases, viral infections
CC   (including HIV), autoimmune diseases and transplant rejection, and also
CC   for drug screening; diagnosis; target identification and validation;
CC   genetic engineering; pharmacogenomics; studying gene function and gene
CC   mapping (e.g. of single-nucleotide polymorphisms). The present sequence
CC   represents human v-rel reticuloendotheliosis viral oncogene homologue A
CC   (REL-A) synthetic modified siNA construct, which is used in the
CC   exemplification of the present invention. REL-A is a nuclear factor of
CC   the kappa light polypeptide gene enhancer in B-cells.
XX
SQ   Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2314 AATTTGTTGCTGCTTGTCAC 2333
              || ||  |||  ||||||||
Db         21 AACTTTCTGCACCTTGTCAC 2


RESULT 5543
AAV26091
ID   AAV26091 standard; DNA; 22 BP.
XX
AC   AAV26091;
XX
DT   27-AUG-1998  (first entry)
XX
DE   Mandarin mb2ch1 gene PCR primer.
XX
KW   Orange; mandarin; detection; chloroplast DNA; identification; fruit;
KW   citrus; plant; food product; olive oil; fruit juice; PCR primer; ss.
XX
OS   Synthetic.
OS   Citrus reticulata.
XX
PN   WO9814607-A1.
XX
PD   09-APR-1998.
XX
PF   30-SEP-1997;   97WO-GB002688.
XX
PR   02-OCT-1996;   96GB-00020498.
PR   20-NOV-1996;   96GB-00024083.
XX
PA   (UKAG-) UK MIN AGRIC FISHERIES & FOOD.
XX
PI   Knight AI;
XX
DR   WPI; 1998-240104/21.
XX
PT   Detection of particular plant species, especially in food products - by
PT   extracting chloroplast DNA from the product and detecting a sequence
PT   which is characteristic of the plant species.
XX
PS   Claim 20; Page 19; 31pp; English.
XX
CC   AAV26085-V26096 are PCR primers used in a method of detecting a
CC   particular plant species in a product, in this case orange and mandarin.
CC   The method involves extracting chloroplast DNA from the product and
CC   analysing the DNA to detect a sequence which is characteristic of the
CC   particular plant species. The example used is a method for detecting the
CC   presence of C. reticulata (mandarin) in a sample containing C. sinensis
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CC   The oligonucleotides (See AAQ79201-52) can be used to treat viral
CC   infections. The oligonucleotides inhibit viral replication by forming
CC   guanosine tetrads which form a stabilised 3D structure. Preferred
CC   oligonucleotides contain at least 2 runs of at least 2 guanosine bases
CC   and may be capped at the 3' terminus with a modifier selected from
CC   polyamine, poly-L-lysine, cholesterol and propanolamine. They may also
CC   have a modified phosphodiester linkage or be modified to contain a
CC   phosphorothioate linkage. They are used to treat infections with viruses
CC   such as herpes simplex virus, human papilloma virus, Epstein-Barr virus,
CC   HIV, adenovirus, respiratory syncitial virus, hepatitis B virus or human
CC   cytomegalovirus. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        291 CCGCGCCACCCCTCTCCCAC 310
              || | ||||||| |  ||||
Db         21 CCCCCCCACCCCCCAACCAC 2


RESULT 5540
AAT51628/c
ID   AAT51628 standard; DNA; 21 BP.
XX
AC   AAT51628;
XX
DT   12-NOV-1997  (first entry)
XX
DE   Viral integrase inhibiting oligonucleotide.
XX
KW   Human immunodeficiency virus; HIV; Epstein Barr virus; EBV;
KW   herpes simplex virus; HSV; human papilloma virus; HPV; adenovirus;
KW   respiratory syncytial virus; RSV; cytomegalovirus; CMV; hepatitis B;
KW   integrase inhibition; guanosine tetrad; ss.
XX
OS   Synthetic.
XX
PN   WO9703997-A1.
XX
PD   06-FEB-1997.
XX
PF   17-JUL-1996;   96WO-US011786.
XX
PR   19-JUL-1995;   95US-0001505P.
PR   23-OCT-1995;   95US-00535168.
PR   19-MAR-1996;   96US-0013688P.
PR   25-MAR-1996;   96US-0014007P.
PR   17-APR-1996;   96US-0015714P.
PR   23-APR-1996;   96US-0016271P.
XX
PA   (ARON-) ARONEX PHARM INC.
XX
PI   Rando RF,  Fennewald S,  Zendegui JG,  Ojwang JO,  Hogan ME;
PI   Pommier Y,  Mazumder A;
XX
DR   WPI; 1997-132569/12.
XX
PT   Oligo:nucleotide(s) capable of forming guanosine tetrads - inhibit viral
PT   enzyme responsible for integrating viral nucleic acid into the host
PT   genome.
XX
PS   Claim 3; Page 145; 245pp; English.
XX
CC   AAT51619-T51698 are oligonucleotides used to inhibit the production of
CC   viruses within a host cell. The oligonucleotides may form guanosine
CC   tetrads (structures formed of eight hydrogen bonds by coordination of the
CC   four oxygen atoms of guanine with alkali cations believed to bind to the
CC   centre of a quadruplex, and by strong stacking interactions) and are used
CC   to prevent the integration of viral nucleic acid into a host genome. The
CC   oligonucleotides inhibit functioning of the integrase enzyme and hence
CC   prevent viral infection. Viral infections that may be treated include
CC   human immunodeficiency virus (HIV), Epstein Barr virus (EBV), herpes
CC   simplex virus (HSV), human papilloma virus (HPV), adenovirus, respiratory
CC   syncytial virus (RSV), cytomegalovirus (CMV) and hepatitis B virus (HBV),
CC   especially HIV-1 infection
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        291 CCGCGCCACCCCTCTCCCAC 310
              || | ||||||| |  ||||
Db         21 CCCCCCCACCCCCCAACCAC 2


RESULT 5541
AAX79217/c
ID   AAX79217 standard; DNA; 21 BP.
XX
AC   AAX79217;
XX
DT   31-AUG-1999  (first entry)
XX
DE   Oligonucleotide #10 forms an intramolecular stacked tetrad structure.
XX
KW   Column; box; stacked tetrad; inhibition; replication; pathophysiological;
KW   herpes simplex virus; HSV; human papilloma virus; Epstein Barr Virus;
KW   HPV; EBV; HIV; human immunodeficiency virus; adenovirus; RSV; HBV; HCMV;
KW   respiratory syncytial virus; hepatitis B virus; human cytomegalovirus;
KW   human T-cell leukaemia virus; HTLV; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .21
FT                    /*tag=  a
FT                    /note= "optionally contains phosphodiester
FT                    internucleotide linkages"
FT   misc_structure   1. .21
FT                    /*tag=  b
FT                    /note= "forms intramolecular stacked tetrad or 3D
FT                    columnar box structure"
XX
PN   WO9833807-A1.
XX
PD   06-AUG-1998.
XX
PF   03-FEB-1998;   98WO-US001974.
XX
PR   04-FEB-1997;   97US-0037374P.
PR   09-DEC-1997;   97US-00987574.
XX
PA   (ARON-) ARONEX PHARM INC.
XX
PI   Rando RF,  Ojwang JO,  Hogan ME,  Wallace TL,  Cossum PA;
XX
DR   WPI; 1998-446809/38.
XX
PT   New guanosine-rich tetrad forming oligonucleotide(s) - used for
PT   inhibiting virus replication for treating e.g. herpes simplex, papilloma,
PT   HIV, adenovirus or hepatitis B virus infection.
XX
PS   Disclosure; Page 137; 140pp; English.
XX
CC   Sequences AAX79210-X79275 represent oligonucleotides (ON) which are able
CC   to form a columnar box or "stacked tetrad" structure by intramolecular
CC   internucleotide binding. The ONs are used to inhibit the replication of
CC   viruses. They are able to suppress virus production for prolonged periods
CC   after an initial short treatment regimen. They can be used for treating
CC   pathophysiological states caused by viruses such as herpes simplex virus,
CC   human papilloma virus, Epstein Barr Virus, HIV, adenovirus, respiratory
```

```
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Jayaraman K,  Vu H,  Zendegui J,  Hogan ME;
XX
DR   WPI; 1994-083097/10.
XX
PT   New method of binding synthetic triplex forming oligonucleotide - in
PT   which the nucleotide is modified with a lipophilic cpd. is useful in
PT   treatment of cell proliferative states and viral infections.
XX
PS   Example; Page 40; 86pp; English.
XX
CC   Triplex forming oligos (TFOs) bind to DNA in a site selective manner. The
CC   biological effect of a TFO is potentiated by modification with lipophilic
CC   cpds., selected from cholesterol, vitamin E and 1,2-di-O- hexadecyl-3-
CC   glyceryl. TFO-linker-cholesterol is used for the treatment of cell
CC   proliferative states (breast, lung and cervical cancers) and in
CC   infections by viruses (Herpes simplex virus type 2 and human
CC   immunodeficiency virus (HIV)). (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        291 CCGCGCCACCCCTCTCCCAC 310
              || | ||||||| |  ||||
Db         21 CCCCCCCACCCCCCAACCAC 2


RESULT 5538
AAQ67230/c
ID   AAQ67230 standard; DNA; 21 BP.
XX
AC   AAQ67230;
XX
DT   25-MAR-2003  (revised)
DT   22-SEP-1994  (first entry)
XX
DE   Triple helix-forming oligonucleotide.
XX
KW   Triple helix; oligonucleotide; TFO; lipophile; cholesterol; Vitamin E;
KW   glyceryl; anticancer; antiviral; herpes simplex; HIV; human;
KW   immunodeficiency virus.
XX
OS   Synthetic.
XX
PN   WO9404550-A1.
XX
PD   03-MAR-1994.
XX
PF   17-AUG-1993;   93WO-US007743.
XX
PR   21-AUG-1992;   92US-00934065.
PR   23-APR-1993;   93US-00053040.
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Jayaraman K,  Vu H,  Zendegui J,  Hogan ME;
XX
DR   WPI; 1994-083097/10.
XX
PT   New method of binding synthetic triplex forming oligonucleotide - in
PT   which the nucleotide is modified with a lipophilic cpd. is useful in
PT   treatment of cell proliferative states and viral infections.
XX
PS   Claim 25; Page 40; 86pp; English.
XX
CC   The invention relates to a method of enhancing sequence specific binding
CC   of a synthetic triplex-forming oligonucleotide (TFO) involving the step
CC   of contacting the TFO with a cell. The TFO comprises a nucleotide
CC   sequence of at least 20 nucleotides including a G and a T, is chemically
CC   modified with a lipophilic compound and is capable of binding to a DNA
CC   duplex target to form a triple helix. The lipophilic compound is
CC   preferably cholesterol, vitamin E or 1,2-di-O-hexadecyl 3-glyceryl and is
CC   joined to the nucleotide via a linker. The TFO is useful medically for
CC   treating cell proliferative states such as breast, lung and cervical
CC   cancers, and for treating viral infections such as caused by Herpes
CC   simplex type 2 or HIV. The biological effect of the TFO is potentiated by
CC   modification with the lipophilic compound. The present sequence is one of
CC   9 specific nucleotide sequences disclosed for use in forming the TFO
CC   (AAQ67224 - AAQ67232). The TFO is formed by attaching cholesterol to the
CC   3' end. This TFO is active against HSV-2. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 21 BP; 0 A; 0 C; 17 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        291 CCGCGCCACCCCTCTCCCAC 310
              || | ||||||| |  ||||
Db         21 CCCCCCCACCCCCCAACCAC 2


RESULT 5539
AAQ79210/c
ID   AAQ79210 standard; DNA; 21 BP.
XX
AC   AAQ79210;
XX
DT   25-MAR-2003  (revised)
DT   17-JUL-1995  (first entry)
XX
DE   Guanosine rich oligonucleotide used to treat viral infection.
XX
KW   Guanosine; tetrad; inhibition; replication; virus; treatment; therapy;
KW   infection; herpes simplex virus; human papilloma virus;
KW   Epstein-Barr virus; HIV, adenovirus; respiratory syncitial virus;
KW   hepatitis B virus; human cytomegalovirus; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    31
FT                   /*tag=  a
FT                   /mod_base
FT                   /note= "Propanolamine group attached to this base."
XX
PN   WO9425037-A1.
XX
PD   10-NOV-1994.
XX
PF   25-APR-1994;   94WO-US004529.
XX
PR   23-APR-1993;   93US-00053027.
PR   28-OCT-1993;   93US-00145704.
XX
PA   (TRIP-) TRIPLEX PHARM CORP.
PA   (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI   Rando RF,  Fennewald S,  Zendegui JG,  Ojwang JO,  Hogan ME;
XX
DR   WPI; 1994-357890/44.
XX
PT   Oligo-nucleotide(s) rich in guanosine which form guanosine tetrads - used
PT   to treat viral infections, e.g. herpes-virus and HIV.
XX
PS   Claim 41; Page 49; 101pp; English.
XX
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XX
PS   Claim 14; Page 251; 1592pp; English.
XX
CC   The present invention describes low adenosine (A) content antisense
CC   oligonucleotides and compositions (I) comprising them. In the antisense
CC   oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC   (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC   immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC   The antisense oligonucleotides and (I) can be used to down-regulate the
CC   expression and or activity of target polypeptides associated with
CC   lung/respiratory disorders and malignancies, such as stimulating and
CC   activating peptide factors and transmitters, transcription factors,
CC   immunoglobulins and antibodies, antibody receptors, cytokines and
CC   chemokines, endogenously produced specific and non-specific enzymes,
CC   binding proteins, adhesion molecules and their receptors, cytokine and
CC   chemokine receptors, adenosine receptors, bradykinin receptors, central
CC   nervous system (CNS) and peripheral nervous and non-nervous system
CC   receptors, CNS and peripheral nervous and non-nervous system peptide
CC   transmitters, defensins, growth factors, vasoactive peptides and
CC   receptors, binding proteins and malignancy associated proteins. The
CC   antisense oligonucleotides may be used in this way to treat disorders
CC   including respiratory obstruction (especially pulmonary obstruction
CC   and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC   surfactant hypoproduction which are associated with a disease or
CC   condition selected from pulmonary vasoconstriction, inflammation,
CC   allergies, asthma, impeded respiration, respiratory distress syndrome
CC   (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC   hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC   pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC   and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC   fragments and antisense oligonucleotides used in the exemplification of
CC   the present invention
XX
SQ   Sequence 21 BP; 0 A; 8 C; 10 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        238 TGGGAATCCGCGGGTCCCCC 257
              ||||   | |||||||| ||
Db          2 TGGGCGCCGGCGGGTCCTCC 21


RESULT 5536
ABZ95564
ID   ABZ95564 standard; DNA; 21 BP.
XX
AC   ABZ95564;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human endothelial nitric oxide synthase antisense fragment no.1428.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 10806; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 21 BP; 0 A; 8 C; 10 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        238 TGGGAATCCGCGGGTCCCCC 257
              ||||   | |||||||| ||
Db          2 TGGGCGCCGGCGGGTCCTCC 21


RESULT 5537
AAQ55571/c
ID   AAQ55571 standard; DNA; 21 BP.
XX
AC   AAQ55571;
XX
DT   25-MAR-2003  (revised)
DT   17-AUG-1994  (first entry)
XX
DE   Sequence of synthetic triplex forming oligo (TFO) B-133-54, anti-HSV 2
DE   TFO.
XX
KW   Triplex forming oligonucleotide; TFO; sequence specific binding; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    21
FT                   /*tag=  a
FT                   /label= G-cholesterol
XX
PN   WO9404550-A1.
XX
PD   03-MAR-1994.
XX
PF   17-AUG-1993;    93WO-US007743.
XX
PR   21-AUG-1992;    92US-00934065.
PR   23-APR-1993;    93US-00053040.
```

CC conditions or mixtures. The antisense oligonucleotides may be derived
CC from sequences AAX55272-74. These multiple target oligonucleotides
CC (specifically AAX55180-271) can be used for the antisense treatment of
CC diseases and conditions. Typical diseases and conditions are those
CC associated with impaired respiration and inflammation, including lung
CC diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC acute asthma, allergies, asthma, impeded respiration, respiratory
CC distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC well as all types of cancers which may metastasize or have metastasized
CC to the lungs, including breast and prostate cancer
XX
SQ Sequence 21 BP; 0 A; 8 C; 10 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 21;
Best Local Similarity 75.0%; Pred. No. 6.4e+03;
Matches 15; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 238 TGGGAATCCGCGGGTCCCCC 257
|||| | |||||||| ||
Db 2 TGGGCGCCGGCGGGTCCTCC 21

RESULT 5534
AAA33748
ID AAA33748 standard; DNA; 21 BP.
XX
AC AAA33748;
XX
DT 28-JUL-2000 (first entry)
XX
DE Low adenosine antisense oligonucleotide SEQ ID NO:1437.
XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothioate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS Homo sapiens.
XX
PN WO200009525-A2.
XX
PD 24-FEB-2000.
XX
PF 03-AUG-1999; 99WO-US017712.
XX
PR 03-AUG-1998; 98US-0095212P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 2000-205971/18.
XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
PT vasoconstruction, inflammation, allergies, asthma, hypertension,
PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT cancers.
XX
PS Claim 18; Page 444; 1343pp; English.
XX
CC The present invention describes a new composition comprising an antisense
CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impeded respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing
XX
SQ Sequence 21 BP; 0 A; 8 C; 10 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 21;
Best Local Similarity 75.0%; Pred. No. 6.4e+03;
Matches 15; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 238 TGGGAATCCGCGGGTCCCCC 257
|||| | |||||||| ||
Db 2 TGGGCGCCGGCGGGTCCTCC 21

RESULT 5535
AAF19870
ID AAF19870 standard; DNA; 21 BP.
XX
AC AAF19870;
XX
DT 14-MAR-2001 (first entry)
XX
DE Human endothelial nitric oxide synthase polynucleotide fragment #1437.
XX
KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200062736-A2.
XX
PD 26-OCT-2000.
XX
PF 24-MAR-2000; 2000WO-US008020.
XX
PR 06-APR-1999; 99US-0127958P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
PA (NYCE/) NYCE J W.
XX
PI Nyce JW;
XX
DR WPI; 2000-679539/66.
XX
PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.

CC directions with the ASTH1 locus, and have similar patterns of expression
CC and common sequence motifs. They are both expressed in trachea, lung and
CC several other tissues. ASTH1I and ASTH1J are novel members of the ets
CC family of transcription factors, which have been implicated in the
CC activation of a variety of genes including the TCRa gene and cytokine
CC genes known to be important in the aetiology of asthma. Both ASTH1I and
CC ASTH1J mRNAs are alternatively spliced. Alternative splicing of
CC transcripts has no effect on the open reading frame of ASTH1J, as the
CC exons involved are all 5' to the start codon in exon b. In contrast,
CC alternative splicing of ASTH1I transcripts results in 3 different ASTH1I
CC isoforms. The invention also encompasses mouse asth1j protein. The ASTH1
CC nucleic acids are useful as diagnostics to identify a hereditary
CC predisposition to asthma, as probes for identifying ASTH1 related genes,
CC for identifying expression of the gene in a biological specimen, and for
CC generating genetically modified non-human animals or site specific gene
CC modifications in cell lines. The encoded ASTH1 proteins are useful as
CC immunogens to raise specific antibodies; in drug screening for
CC compositions that mimic or modulate activity or expression of ASTH1I
CC and/or ASTH1J (including altered forms of these proteins); and as a
CC therapeutic. The ASTH1 genes or fragments thereof, encoded proteins,
CC ASTH1 genomic regulatory regions, and anti-ASTH1I and anti-ASTH1J
CC antibodies are useful in the identification of individuals predisposed to
CC development of asthma, and for modulation of gene activity in vivo for
CC prophylactic and therapeutic purposes. The intact ASTH1I or ASTH1J
CC proteins or active fragments thereof may be used to modulate or reduce
CC bronchial hyperreactivity. Sequences AAA80260-A80261 and AAA80264-A80416
CC represent polymorphic sites within the ASTH1J or ASTH1I genes
XX
SQ Sequence 21 BP; 8 A; 0 C; 2 G; 11 T; 0 U; 0 Other;

```
  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 6.4e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2177 TTTTTTTTTTAA 2188
                ||||||||||||
Db          2 TTTTTTTTTTAA 13
```

RESULT 5532
AAT76513
ID AAT76513 standard; DNA; 21 BP.
XX
AC AAT76513;
XX
DT 16-SEP-1997 (first entry)
XX
DE Endothelial nitric oxide antisense oligonucleotide.
XX
KW Asthma; airway epithelium; adenosine free; cystic fibrosis;
KW chronic obstructive pulmonary disease; bronchitis; ss.
XX
OS Synthetic.
XX
PN WO9640162-A1.
XX
PD 19-DEC-1996.
XX
PF 06-JUN-1996; 96WO-US009306.
XX
PR 07-JUN-1995; 95US-00474497.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW, Metzger WJ;
XX
DR WPI; 1997-051871/05.
XX
PT Treatment of airway diseases such as asthma - by topically applying
PT adenosine-free antisense oligo:nucleotide to airway epithelium of
PT subject.
XX
PS Example 5; Page 43; 71pp; English.
XX
CC A method for treating airway disease in a subject has been produced,
CC which involves the topical administration of an essentially adenosine
CC free antisense oligonucleotide (ON) to the airway epithelium of the
CC subject. The present sequence is an antisense oligonucleotide specific
CC for endothelial nitric oxide. The method can be used to treat airway
CC diseases such as cystic fibrosis, asthma, chronic obstructive pulmonary
CC disease, bronchitis and other airway diseases characterised by an
CC inflammatory response. By eliminating adenosine from the antisense ON,
CC its liberation upon antisense degradation is prevented, thereby
CC preventing adenosine-induced bronchoconstriction in patients with hyper-
CC reactive airways
XX
SQ Sequence 21 BP; 0 A; 8 C; 10 G; 3 T; 0 U; 0 Other;

```
  Query Match             0.4%;  Score 12;  DB 1;  Length 21;
  Best Local Similarity   75.0%;  Pred. No. 6.4e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        238 TGGGAATCCGCGGGTCCCCC 257
              ||||   | ||||||| ||
Db          2 TGGGCGCCGGCGGGTCCTCC 21
```

RESULT 5533
AAX54304
ID AAX54304 standard; DNA; 21 BP.
XX
AC AAX54304;
XX
DT 05-JUL-1999 (first entry)
XX
DE Endothelial nitric oxide synthase antisense oligonucleotide.
XX
KW Antisense oligonucleotide; multiple target; antisense treatment;
KW impaired respiration; inflammation; lung disease;
KW pulmonary vasoconstriction; inflammation; allergic rhinitis;
KW acute asthma; allergy; asthma; impeded respiration;
KW respiratory distress syndrome; pain; cystic fibrosis;
KW pulmonary hypertension; pulmonary vasoconstriction; emphysema;
KW chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
KW colon cancer; breast cancer; lung cancer; pancreatic cancer;
KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
KW prostate cancer; ss.
XX
OS Synthetic.
XX
PN WO9913886-A1.
XX
PD 25-MAR-1999.
XX
PF 17-SEP-1998; 98WO-US019419.
XX
PR 17-SEP-1997; 97US-0059160P.
PR 09-JUN-1998; 98US-00093972.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 1999-229400/19.
XX
PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
PT vasoconstriction.
XX
PS Disclosure; Page 61; 120pp; English.
XX
CC The specification describes antisense oligonucleotides (AAX52869-X55271)
CC directed against at least 2 mRNAs selected from target genes, coding and
CC non-coding regions of RNAs corresponding to target genes, gene initiation
CC codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
CC -end and the juxta-section between coding and non-coding regions and all
CC segments of RNAs encoding proteins associated with one or more diseases,

```
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 774; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 2 A; 3 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2168 TTTTTTTTTTTTTTTTTTTA 2187
              |||| |||||| || | | |
Db          1 TTTTATTTTTTCTTCTGTCA 20


RESULT 5530
ADD81702
ID   ADD81702 standard; DNA; 20 BP.
XX
AC   ADD81702;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #631.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2003-743746/70.
XX
PT   Predicting potential of oligonucleotides to hybridize to target
PT   nucleotide sequence comprises determining and evaluating for each
PT   oligonucleotide a parameter predictive of the oligonucleotides ability to
PT   hybridize with target.
XX
PS   Example 2; SEQ ID NO 775; 423pp; English.
XX
CC   The invention relates to a method of predicting the potential of
CC   oligonucleotides to hybridise to target nucleotide sequences. The method
CC   is useful for predicting the potential of an oligonucleotide to hybridise
CC   to a target nucleotide sequence, e.g. RNA or DNA or a sequence that
CC   contains chemically modified nucleotides. The method is also useful for
CC   predicting the potential of the oligonucleotides to hybridise to a
CC   complementary target nucleotide sequence. The method is useful to predict
CC   efficient hybridisation oligonucleotides for each of multiple target
CC   sequences therefore very large arrays may be constructed and tested with
CC   minimum synthesis of oligonucleotides. The present sequence represents a
CC   HIV PRT antisense derived probe.
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2169 TTTTTTTTTTTTTTTTTTAA 2188
              ||| |||||| || | | ||
Db          1 TTTATTTTTTCTTCTGTCAA 20


RESULT 5531
AAA80353
ID   AAA80353 standard; DNA; 21 BP.
XX
AC   AAA80353;
XX
DT   22-NOV-2000  (first entry)
XX
DE   Human ASTH1I 5' region polymorphic site, SEQ ID NO:100 (a).
XX
KW   ASTH1 locus; ASTH1I; ASTH1J; human; chromosome 11p; asthma;
KW   bronchial hyperreactivity; ets family; transcription factor;
KW   splice variant; genetic predisposition; polymorphism; antibody;
KW   drug screening; prophylaxis; therapy; diagnosis;
KW   single nucleotide polymorphism; SNP; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   variation       replace(10. .12,TA)
FT                   /*tag=  a
XX
PN   US6087485-A.
XX
PD   11-JUL-2000.
XX
PF   21-JAN-1998;   98US-00009913.
XX
PR   21-JAN-1997;   97US-0035663P.
PR   01-JUL-1997;   97US-0051432P.
XX
PA   (AXYS-) AXYS PHARM INC.
XX
PI   Galvin M,  Miller A,  North M,  Cardon L,  Buckler A;
PI   Brooks-Wilson AR,  Carey AH;
XX
DR   WPI; 2000-505109/45.
XX
PT   New nucleic acids other than naturally occurring chromosomes encoding
PT   ASTH1 protein, for e.g. screening compositions that modulate expression
PT   or function of ASTH1 proteins or as diagnostics for genetic
PT   predisposition to asthma.
XX
PS   Example; Col 41-42; 131pp; English.
XX
CC   The invention relates to the ASTH1 locus on the short arm of human
CC   chromosome (11p). This locus comprises the ASTH1I and ASTH1J genes, which
CC   are associated with a genetic predisposition to asthma and bronchial
CC   hyperreactivity. The ASTH1I and ASTH1J genes are oriented in opposite
```

```
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 71; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 3 A; 3 C; 1 G; 13 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2169 TTTTTTTTTTTTTTTTTTAA 2188
              ||| |||||| || | | ||
Db          1 TTTATTTTTTCTTCTGTCAA 20


RESULT 5528
AAD43244/c
ID   AAD43244 standard; DNA; 20 BP.
XX
AC   AAD43244;
XX
DT   14-NOV-2002  (first entry)
XX
DE   Antisense oligonucleotide R51AS5.
XX
KW   Tumour cell proliferation; Rad51 inhibitor; p53 protein; premature aging;
KW   hyperproliferative disorder; Hodgkin's disease; squamous cell carcinoma;
KW   leukaemia; autoimmune disease; cancer; graft rejection; angioplasty;
KW   inflammatory bowel disease; immunosuppressive; gene therapy; arthritis;
KW   antisense; phosphorothioate backbone; ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
XX
PN   US2002086840-A1.
XX
PD   04-JUL-2002.
XX
PF   26-JAN-2001; 2001US-00771355.
XX
PR   26-JAN-2000; 2000US-0178561P.
XX
PA   (ZARL/) ZARLING D A.
PA   (REDD/) REDDY G.
XX
PI   Zarling DA,  Reddy G;
XX
DR   WPI; 2002-635686/68.
XX
PT   Inhibiting/reducing tumor cell proliferation in individual in vivo, for
PT   treating cancer, arthritis, involves contacting tumor cell in vivo with
PT   Rad51 inhibitor, and polynucleotide expressing functional p53 protein.
XX
PS   Disclosure; Page 5; 12pp; English.
XX
CC   The invention relates to a method for inhibiting or reducing tumour cell
CC   proliferation in an individual in vivo. The method comprising contacting
CC   a tumour cell in vivo with a Rad51 inhibitor and a polynucleotide capable
CC   of expressing functional p53 protein. The method is useful for inhibiting
CC   or reducing tumour cell proliferation in an individual in vivo. The
CC   method is useful for treating hyperproliferative disorders, especially
CC   cancer (such as Hodgkin's disease, squamous cell carcinoma and
CC   leukaemia), premature aging, autoimmune disease, arthritis, graft
CC   rejection, inflammatory bowel disease, and proliferation induced after
CC   medical procedures such as surgery and angioplasty. The invention is
CC   useful in gene therapy. The present sequence is an antisense
CC   oligonucleotide used to illustrate the method of the invention
XX
SQ   Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        564 CGGGCGCGGTGAGCGCCCGC 583
              ||||||||     |||||||
Db         20 CGGGCGCGTGCCACGCCCGC 1


RESULT 5529
ADD81701
ID   ADD81701 standard; DNA; 20 BP.
XX
AC   ADD81701;
XX
DT   29-JAN-2004  (first entry)
XX
DE   HIV PRT antisense derived probe #630.
XX
KW   ss; oligonucleotide hybridisation potential; efficient hybridisation;
KW   large array; minimum oligonucleotide synthesis; probe.
XX
OS   Human immunodeficiency virus.
XX
PN   US2003054346-A1.
XX
PD   20-MAR-2003.
XX
PF   15-FEB-2001; 2001US-00784674.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (SHAN/) SHANNON K W.
PA   (WOLB/) WOLBER P K.
PA   (DELE/) DELENSTARR G C.
PA   (WEBB/) WEBB P G.
PA   (KINC/) KINCAID R H.
XX
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```
CC   radiation and DNA damaging chemotherapeutics in individuals and for
CC   prolonging survival in an individual with cancer. Kits for carrying out
CC   the methods may be used to diagnose and/or treat cancer and for
CC   adjunctive therapy
XX
SQ   Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        564 CGGGCGCGGTGAGCGCCCGC 583
              ||||||||     |||||||
Db         20 CGGGCGCGTGCCACGCCCGC 1


RESULT 5525
AAS01198/c
ID   AAS01198 standard; cDNA; 20 BP.
XX
AC   AAS01198;
XX
DT   04-JUL-2001  (first entry)
XX
DE   Human RAD51 antisense oligonucleotide, AS5.
XX
KW   Human; Rad51; antisense; drug screening; cancer; autoimmune disease;
KW   arthritis; graft rejection; inflammatory bowel disease; surgery;
KW   angioplasty; ss.
XX
OS   Homo sapiens.
XX
PN   WO200119397-A1.
XX
PD   22-MAR-2001.
XX
PF   18-SEP-2000; 2000WO-US025838.
XX
PR   17-SEP-1999;   99US-0154616P.
PR   06-DEC-1999;   99US-00455300.
XX
PA   (PANG-) PANGENE CORP.
XX
PI   Reddy G;
XX
DR   WPI; 2001-244704/25.
XX
PT   Inhibiting cell proliferation for treating arthritis, graft rejection,
PT   inflammatory bowel disease, cancer, proliferation induced after medical
PT   procedure, involves administering Rad51 antibody or its fragment to cell.
XX
PS   Example 6; Fig 16B; 102pp; English.
XX
CC   The sequence represents the human Rad51 antisense oligonucleotide, AS5.
CC   The antisense oligonucleotide is used to study down-regulation of Rad51
CC   protein in human brain, breast and prostate cells. Rad51 protein is
CC   defective in repair of damaged DNA, genetic recombination and the
CC   recombinational repair of DNA lesions, and plays a central role in
CC   cancer. Inhibiting cell proliferation involves administering to a cell a
CC   Rad51 antibody or its fragment. The Rad51 antibody or its fragment is
CC   useful for inhibiting cell proliferation, for treating disease states
CC   such as cancer, autoimmune disease, arthritis, graft rejection,
CC   inflammatory bowel disease, proliferation induced after medical
CC   procedures such as surgery, angioplasty etc. in humans and animals
XX
SQ   Sequence 20 BP; 1 A; 8 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        564 CGGGCGCGGTGAGCGCCCGC 583
              ||||||||     |||||||
Db         20 CGGGCGCGTGCCACGCCCGC 1


RESULT 5526
AAH80810
ID   AAH80810 standard; cDNA; 20 BP.
XX
AC   AAH80810;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 774.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-00021701.
XX
PR   10-FEB-1998;   98US-00021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters.
XX
PS   Example 2; Col 71; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
CC   (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ   Sequence 20 BP; 2 A; 3 C; 1 G; 14 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2168 TTTTTTTTTTTTTTTTTTTA 2187
              ||||  ||||||  ||  |  |  |
Db          1 TTTTATTTTTCTTCTGTCA 20


RESULT 5527
AAH80811
ID   AAH80811 standard; cDNA; 20 BP.
XX
AC   AAH80811;
XX
DT   11-SEP-2003  (revised)
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 775.
XX
```

```
FT                   /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                   and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 40; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              ||| ||| |||| |||  ||
Db          1 TTTGTTTCTTTTATTTCATT 20


RESULT 5523
AAA80059
ID   AAA80059 standard; DNA; 20 BP.
XX
AC   AAA80059;
XX
DT   20-NOV-2000  (first entry)
XX
DE   Hepatitis B virus related oligonucleotide probe #322.
XX
KW   Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW   mutation; high-density gene chip; ss.
XX
OS   Hepatitis B virus.
XX
PN   CN1252452-A.
XX
PD   10-MAY-2000.
XX
PF   24-SEP-1999;   99CN-00114460.
XX
PR   24-SEP-1999;   99CN-00114460.
XX
PA   (UYDO-) UNIV DONGNAN.
XX
PI   Sun X,  Lu Z,  Wang Y;
XX
DR   WPI; 2000-443233/39.
XX
PT   High-density gene chip making process.
XX
PS   Example 1; Fig 15; 19pp; Chinese.
XX
CC   The present invention describes a method which comprises making a high-
CC   density gene chip, specifically for making high-density micro-array of
CC   oligonucleotide probes. An oligonucleotide probe selecting process to
CC   seek preferentially length variable and coverage variable probes is
CC   provided to ensure identical cross melting temperature of probes to the
CC   maximum limit, and this can make the cross control of gene chip
CC   relatively simple and raise the reliability of the gene chip detecting
CC   results. The process proposes a specific probe selection method for
CC   detecting target sequence directly, detecting mutation in both specific
CC   and non-specific sites and a probe overall arrangement scheme. AAA79738
CC   to AAA80201 represent oligonucleotide probe sequences which are used in
CC   examples from the present invention
XX
SQ   Sequence 20 BP; 11 A; 5 C; 4 G; 0 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       1405 GAACTACATCAAAGAAGCCC 1424
              ||| ||| | |||||| ||
Db          1 GAAGAACAACCAAGAAGACC 20


RESULT 5524
AAA37705/c
ID   AAA37705 standard; DNA; 20 BP.
XX
AC   AAA37705;
XX
DT   22-NOV-2000  (first entry)
XX
DE   Human Rad51 antisense inhibitor AS5.
XX
KW   Antisense inhibitor; human; Rad51; cell proliferation; cancer survival;
KW   radiation sensitivity; therapy; AS5; ss.
XX
OS   Homo sapiens.
XX
PN   WO200047231-A2.
XX
PD   17-AUG-2000.
XX
PF   03-FEB-2000; 2000WO-US002881.
XX
PR   10-FEB-1999;   99US-0119578P.
PR   06-DEC-1999;   99US-00454495.
XX
PA   (PANG-) PANGENE CORP.
XX
PI   Reddy G;
XX
DR   WPI; 2000-506091/45.
XX
PT   Inhibiting cell proliferation useful for cancer therapy, comprises
PT   administering Rad51 inhibitor in vivo.
XX
PS   Claim 8; Page 25; 42pp; English.
XX
CC   This sequence represents an antisense inhibitor of human Rad51,
CC   designated AS5 (also referred to as R51AS5). The antisense inhibitors can
CC   be used in a method of the invention, for inhibiting cell proliferation.
CC   They can also be used in methods for inducing sensitivity to radiation
CC   and DNA damaging chemotherapeutics in an individual and in a method for
CC   prolonging survival in an individual with cancer. The methods and
CC   antisense molecules are useful for inhibiting cell proliferation,
CC   especially cancerous cell proliferation, for inducing sensitivity to
```

```
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB001890.
XX
PR   21-NOV-1997;   97FR-00014673.
PR   04-NOV-1998;   98US-0107078P.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae.
XX
PS   Page 1499; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading frames
CC   and other nucleic acid sequences from the genome of Chlamydia pneumoniae
CC   (see AAX91990). C. pneumoniae causes respiratory disease such as
CC   pneumonia and bronchitis and is thought to be a contributing factor in
CC   heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC   nodosum or pharyngitis. The polypeptides encoded by the open reading
CC   frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used
CC   in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC   nucleotides sequences can also be used as immunogenic compositions,
CC   especially where the vector directs the expression of a neutralising
CC   epitope of C. pneumoniae
XX
SQ   Sequence 20 BP; 7 A; 4 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2556 GGATGCTGGGCTCTGTTCTT 2575
              ||||  | | ||| ||||||
Db         20 GGATAATCGCCTCCGTTCTT 1


RESULT 5521
AAA94525
ID   AAA94525 standard; DNA; 20 BP.
XX
AC   AAA94525;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20965 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Optionally the internucleotide linkages are
FT                    phosphorothioate"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                    and cytidine residues are 5-methylcytidines"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                    and cytidine residues are 5-methylcytidines"
XX
PN   US6110664-A.
XX
PD   29-AUG-2000.
XX
PF   25-JUN-1999;   99US-00344914.
XX
PR   25-JUN-1999;   99US-00344914.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM;
XX
DR   WPI; 2000-586346/55.
XX
PT   New antisense compounds for modulating the expression of G-alpha-S1,
PT   especially useful for diagnostics, therapeutics and prophylaxis, e.g. to
PT   prevent or delay infection, inflammation or tumor formation.
XX
PS   Claim 3; Col 39; 37pp; English.
XX
CC   The present invention relates to antisense compounds 8-30 bases long
CC   targeted to a coding region, a stop codon, or a 3' untranslated region of
CC   human G-alpha-S1 (see AAA94451). The antisense compounds specifically
CC   hybridize with and inhibit the expression of human G-alpha-S1. The
CC   antisense compounds are useful for diagnostics, therapeutics and
CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
CC   formation. Particularly, the antisense oligonucleotides are useful for
CC   treating humans prone to a disease or condition associated with
CC   expression of G-alpha-S1. The present sequence an antisense
CC   oligonucleotide targeted to the 3' untranslated region of human G-alpha-
CC   S1
XX
SQ   Sequence 20 BP; 2 A; 2 C; 1 G; 15 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2166 TTTTTTTTTTTTTTTTTTTT 2185
              || ||| |||| |||  |||
Db          1 TTGTTTCTTTTATTTCATTT 20


RESULT 5522
AAA94526
ID   AAA94526 standard; DNA; 20 BP.
XX
AC   AAA94526;
XX
DT   09-JAN-2001  (first entry)
XX
DE   Antisense oligonucleotide #20966 targeted to human G-alpha-S1.
XX
KW   G-alpha-S1; infection; inflammation; tumour; antisense; human;
KW   phosphorothioate; 2'-methoxyethyl; MOE; 5-methylcytidine;
KW   Gs-alpha short form; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Optionally the internucleotide linkages are
FT                    phosphorothioate"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "Optionally the nucleotides are 2'-methoxyethyl
FT                    and cytidine residues are 5-methylcytidines"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
```

PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5916; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 13 A; 2 C; 1 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 20;
Best Local Similarity 75.0%; Pred. No. 6.3e+03;
Matches 15; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 2174 TTTTTTTTTTTTTAACTTTG 2193
||| ||||||| | ||||
Db 20 TTTCTTTTTTTAAAGATTTG 1

RESULT 5519
ABZ89594
ID ABZ89594 standard; DNA; 20 BP.
XX
AC ABZ89594;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX

PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 4836; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 13 A; 0 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 6.3e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAA 2797
||||||||||||
Db 1 AAAAAAAAAAAA 12

RESULT 5520
AAX92277/c
ID AAX92277 standard; DNA; 20 BP.
XX
AC AAX92277;
XX
DT 13-SEP-1999 (first entry)
XX
DE PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine;
KW neutralising epitope; PCR primer; ss.
XX
OS Synthetic.
OS Chlamydophila pneumoniae.
XX
PN WO9927105-A2.
XX

```
CC   aberrant insulin regulation or diabetes or a hyperproliferative disorder,
CC   particularly cancer. The antisense compounds are also useful for
CC   diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
CC   infection, inflammation or tumour formation, as research reagents and
CC   kits, and in distinguishing between functions of various members of a
CC   biological pathway. This polynucleotide sequence represents an
CC   oligonucleotide inhibitor of rat protein phosphatase 2 catalytic beta
CC   subunit mRNA levels of the invention. NOTE: This oligonucleotide contains
CC   phosphorothioate residues and has 2'- MOE wings with a deoxy gap
XX
SQ   Sequence 20 BP; 0 A; 15 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        252 TCCCCCACCTCTCCTCCGCC 271
              |||||  |  |||| |||||
Db          1 TCCCCGCCGCCTCCCCCGCC 20


RESULT 5516
ABA97649
ID   ABA97649 standard; DNA; 20 BP.
XX
AC   ABA97649;
XX
DT   11-APR-2002  (first entry)
XX
DE   probe t.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 14 A; 0 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       1967 ATATTTACCTTGAAAAAAAG 1986
              |||| ||  |  ||||||||
Db          1 ATATATATATAAAAAAAAAG 20


RESULT 5517
ABA97650
ID   ABA97650 standard; DNA; 20 BP.
XX
AC   ABA97650;
XX
DT   11-APR-2002  (first entry)
XX
DE   probe u.
XX
KW   ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS   Unidentified.
XX
PN   JP2001286300-A.
XX
PD   16-OCT-2001.
XX
PF   20-APR-2000; 2000JP-00120097.
XX
PR   20-APR-1999;   99JP-00111601.
PR   24-AUG-1999;   99JP-00236666.
PR   30-AUG-1999;   99JP-00242693.
PR   01-FEB-2000; 2000JP-00028896.
XX
PA   (BIOI-) BIOINDUSTRY KYOKAI SH.
PA   (KANK-) KANKYO ENG KK.
PA   (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR   WPI; 2002-134193/18.
XX
PT   Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT   the obtained data.
XX
PS   Example 6; Page 18; 34pp; Japanese.
XX
CC   This invention relates to a method for measuring nucleic acids using a
CC   nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC   decreases the fluorescence of the fluorochrome when hybridised with a
CC   target nucleic acid, the decrease in the fluorescence is measured. The
CC   method can be used for measuring a target nucleic acid
XX
SQ   Sequence 20 BP; 15 A; 0 C; 0 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       2782 ATTGAAAAAAAAAAAAAAAA 2801
              ||  | | | ||||||||||
Db          1 ATATATATATAAAAAAAAAA 20


RESULT 5518
ABZ90674/c
ID   ABZ90674 standard; DNA; 20 BP.
XX
AC   ABZ90674;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
```

```
XX
PD   19-JUN-2001.
XX
PF   17-DEC-1999;   99US-00467082.
XX
PR   17-DEC-1999;   99US-00467082.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Cowsert LM;
XX
DR   WPI; 2001-407321/43.
XX
PT   Antisense oligonucleotides for inhibiting the expression of the human
PT   protein kinase A catalytic subunit C-alpha, particularly useful for
PT   preventing, delaying or treating infection, inflammation or tumor
PT   formation.
XX
PS   Claim 1; Col 44; 35pp; English.
XX
CC   The invention is directed to antisense compounds, particularly
CC   oligonucleotides which are targetted to a DNA encoding human protein
CC   kinase A (PKA) catalytic subunit C-alpha to modulate (inhibit) its
CC   expression. The antisense compounds are useful for diagnostics,
CC   therapeutics, prophylaxis and as research reagents or kits. The antisense
CC   oligonucleotides are useful for treating human, suspected of having or
CC   being prone to a disease or condition associated with the expression of
CC   PKA catalytic subunit C-alpha. In particular, the antisense
CC   oligonucleotides are useful for preventing, delaying or treating
CC   infection, inflammation and tumour formation. They are also useful in
CC   antisense therapy. The present sequence is a chimeric antisense
CC   oligonucleotide with a phosphorothioate backbone. This oligo is targetted
CC   to the start codon of human PKA catalytic subunit C-alpha to inhibit its
CC   expression
XX
SQ   Sequence 20 BP; 0 A; 7 C; 12 G; 1 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        476 CCCGGCCGCCAGAGCCAGGA 495
              ||||||||||   |||  ||
Db         20 CCCGGCCGCCGCCGCCGCGA 1


RESULT 5514
AAF54617
ID   AAF54617 standard; DNA; 20 BP.
XX
AC   AAF54617;
XX
DT   03-APR-2001  (first entry)
XX
DE   Human HLA Class I oligonucleotide probe SEQ ID NO: 62.
XX
KW   Human; HLA typing; oligonucleotide array; Class I; gene discovery;
KW   expression; polymorphism detection; mapping; probe; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200079006-A1.
XX
PD   28-DEC-2000.
XX
PF   16-JUN-2000; 2000WO-US016722.
XX
PR   17-JUN-1999;   99US-0139843P.
XX
PA   (HUTC-) HUTCHINSON CANCER RES CENT FRED.
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Petersdorf EW,  Guo Z,  Hansen JA,  Hood L;
XX
DR   WPI; 2001-102734/11.
XX
PT   Oligonucleotide arrays useful for human leukocyte antigen (HLA) tissue
PT   typing, comprises HLA class I oligonucleotide probes representing all
PT   known polymorphisms in HLA class I locus, on a solid support.
XX
PS   Disclosure; Page 61; 83pp; English.
XX
CC   The present invention provides a microarray of oligonucleotides
CC   comprising probes for the human HLA Class I genes attached to a solid
CC   support. These can be used in HLA typing. Oligonucleotide arrays are also
CC   useful in large scale gene discovery, monitoring gene expression,
CC   polymorphism detection and gene mapping
XX
SQ   Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy         40 AAGGCCCGCGCGCGGCGGGG 59
              | |||| | ||| || ||||
Db          1 AGGGCCTGTGCGTGGAGGGG 20


RESULT 5515
ABT07491
ID   ABT07491 standard; DNA; 20 BP.
XX
AC   ABT07491;
XX
DT   14-NOV-2002  (first entry)
XX
DE   Rat protein phosphatase 2 oligo inhibitor SEQ ID No 105.
XX
KW   Cytostatic; antidiabetic; antisense therapy; aberrant insulin regulation;
KW   protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
KW   hyperproliferative disorder; diabetes; inflammation; tumour; rat; ds.
XX
OS   Rattus norvegicus.
XX
PN   WO200264737-A2.
XX
PD   22-AUG-2002.
XX
PF   31-JAN-2002; 2002WO-US002805.
XX
PR   09-FEB-2001; 2001US-00780045.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Monia BP,  Wyatt JR;
XX
DR   WPI; 2002-657588/70.
XX
PT   New antisense oligonucleotides targeted to nucleic acid encoding Protein
PT   Phosphatase 2 catalytic subunit beta, useful for treating diseases
PT   related to Protein Phosphatase 2 catalytic subunit beta expression, such
PT   as cancer.
XX
PS   Example 16; Page 98; 137pp; English.
XX
CC   The invention relates to a novel compound 8-50 nucleotides in length
CC   targeted to a nucleic acid molecule encoding a protein phosphatase 2
CC   catalytic beta subunit, where the compound specifically hybridises with
CC   and inhibits the expression of protein phosphatase 2 catalytic beta
CC   subunits, or specifically hybridises with at least an 8-nucleotide
CC   portion of an active site on a nucleic acid molecule encoding a protein
CC   phosphatase 2 catalytic beta subunit. The antisense compounds are useful
CC   for modulating the expression of protein phosphatase 2 catalytic beta
CC   subunits and for treating diseases or conditions associated with
CC   expression of protein phosphatase 2 catalytic beta subunits, e.g.
```

```
CC   Epstein-Barr virus and polio virus, and parasitic infectious agents
CC   selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC   medinesis. The method is also useful for detecting genetic diseases such
CC   as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC   Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC   involved in DNA amplification, replication, recombination or repair, the
CC   cancer is specifically associated with a gene selected from BRCA1 gene,
CC   p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC   method is also used for environmental monitoring, forensics and the food
CC   and feed industry, detecting comprises scanning (using e.g. a scanning
CC   electron microscope and infrared microscope) the support at the
CC   particular sites and identifying if ligation of the oligonucleotide probe
CC   sets occurred and correlating (using a computer) identified ligation to a
CC   presence or absence of the target nucleotide sequences. ABI82074 to
CC   ABI97546 represent oligonucleotide sequences used in the exemplification
CC   of the present invention
XX
SQ   Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 6.3e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        273 GGCAGCACCTCT 284
              ||||||||||||
Db          7 GGCAGCACCTCT 18


RESULT 5512
ABZ88600/c
ID   ABZ88600 standard; DNA; 20 BP.
XX
AC   ABZ88600;
XX
DT   17-OCT-2003  (first entry)
XX
DE   Human oligonucleotide sequence.
XX
KW   Human; antisense; lung dysfunction; nasal airway dysfunction;
KW   antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW   antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW   antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW   adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW   lung inflammation; respiratory disease; ds.
XX
OS   Homo sapiens.
XX
PN   WO200285308-A2.
XX
PD   31-OCT-2002.
XX
PF   23-APR-2002; 2002WO-US013135.
XX
PR   24-APR-2001; 2001US-0286137P.
XX
PA   (EPIG-) EPIGENESIS PHARM INC.
XX
PI   Nyce JW,  Li Y,  Sandrasagra A,  Katz E,  Pabalan J,  Aguilar D;
PI   Miller S,  Tang L,  Shahabuddin S;
XX
DR   WPI; 2003-229219/22.
XX
PT   Pharmaceutical composition for treating ailments associated with impaired
PT   respiration, has oligo(s) antisense to specific gene(s) or its
PT   corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT   ubiquinone.
XX
PS   Disclosure; SEQ ID NO 3842; 872pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition, which has a
CC   first active agent comprising an oligonucleotide antisense to the
CC   initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC   5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC   junctions of genes encoding a polypeptide associated with lung and/or
CC   nasal airway dysfunction and a second active agent comprising an
CC   antiinflammatory steroid and ubiquinone. A composition of the invention
CC   has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC   immunosuppressive, and cytostatic activity. The composition may have a
CC   use in antisense gene therapy. The composition is useful for treating or
CC   preventing a respiratory, lung or malignant disease or condition, also
CC   for enhancing the prophylactic or therapeutic respiratory effect of an
CC   antiinflammatory steroid in a subject, for reducing or depleting levels
CC   of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC   receptor, producing bronchodilation, increasing levels of ubiquinone or
CC   lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC   lung inflammation, lung allergies, or a respiratory disease or condition.
CC   Note: The sequence data for this patent is not represented in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 20 BP; 0 A; 4 C; 16 G; 0 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 6.3e+03;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        526 CCCGGCCGGCCTACTGCCCC 545
              ||| ||| |||  | |||||
Db         20 CCCCGCCCGCCCCCGGCCCC 1


RESULT 5513
AAD09639/c
ID   AAD09639 standard; DNA; 20 BP.
XX
AC   AAD09639;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human PKA C-alpha chimeric antisense oligonucleotide (ISIS# 102604).
XX
KW   Human; protein kinase A; PKA catalytic subunit C-alpha inhibitor;
KW   therapy; infection; inflammation; tumour; prophylaxis; antisense;
KW   phosphorothioate backbone; chimeric; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
OS   Chimeric.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "Methoxyethyl residues"
FT   modified_base    2
FT                    /*tag=  c
FT                    /mod_base= m5c
FT   modified_base    4
FT                    /*tag=  d
FT                    /mod_base= m5c
FT   misc_feature     6. .15
FT                    /*tag=  e
FT                    /note= "Central gap region"
FT   modified_base    16. .20
FT                    /*tag=  f
FT                    /mod_base= OTHER
FT                    /note= "Methoxyethyl residues"
FT   modified_base    16. .17
FT                    /*tag=  g
FT                    /mod_base= m5c
XX
PN   US6248586-B1.
```

XX
CC The present invention relates to murine oligonucleotides (ACC62754-
CC ACC68806), which are associated with tumour suppression, tumour
CC reversion, apoptosis and virus resistance. The oligonucleotides are
CC useful as (1) as probes and primers for detecting, identifying,
CC quantifying and/or amplifying nucleic acid, e.g. as one component of a
CC gene chip; in vitro as (anti)sense reagents; and (2) for production of
CC recombinant polypeptides. The oligonucleotides are useful for preparation
CC of pharmaceuticals for prevention and/or treatment of viral diseases that
CC are characterised by development of tumours or cell degeneration,
CC specifically cancer but also Alzheimer's disease and schizophrenia
XX
SQ Sequence 17 BP; 1 A; 2 C; 1 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 5.6e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAA 2797
||||||||||||
Db 17 AAAAAAAAAAAA 6

RESULT 5510
AAH00614/c
ID AAH00614 standard; DNA; 20 BP.
XX
AC AAH00614;
XX
DT 24-JUL-2001 (first entry)
XX
DE Staphylococcus detection nucleotide sequence SEQ ID NO:605.
XX
KW Species specific; genus specific; family specific; probe; detection;
KW identification; algal; archaeal; bacterial; fungal; parasitical;
KW microorganism; diagnosis; translation elongation factor Tu; toxin;
KW translation elongation factor G; RecA recombinase; resistance;
KW catalytic subunit of proton-translocating ATPase; antimicrobial; vaccine;
KW primer; ss.
XX
OS Staphylococcus sp.
XX
PN WO200123604-A2.
XX
PD 05-APR-2001.
XX
PF 28-SEP-2000; 2000WO-CA001150.
XX
PR 28-SEP-1999; 99CA-02283458.
PR 19-MAY-2000; 2000CA-02307010.
XX
PA (INFE-) INFECTIO DIAGNOSTIC (IDI) INC.
XX
PI Bergeron MG, Boissinot M, Huletsky A, Menard C, Ouellette M;
PI Picard FJ, Roy PH;
XX
DR WPI; 2001-245006/25.
XX
PT Nucleic acid sequences are used to generate universal probes and primers
PT which can be used to identify and detect the presence of algal, archaeal,
PT bacterial, fungal and parasitical species in a test sample.
XX
PS Claim 11; Page 756; 1580pp; English.
XX
CC The present invention describes a method for generating a repertory of
CC nucleic acids of tuf, fus, atpD and/or recA genes from which probes
CC and/or primers are derived. The method comprises amplifying the nucleic
CC acids of determined algal, archaeal, bacterial, fungal and parasitical
CC species with a combination of defined primer pairs. The method can be
CC used for producing probes and/or primers for detecting one or more
CC related microorganisms e.g. algae, archaea, bacteria, fungi and
CC parasites, for universal detection and for specific and ubiquitous
CC detection and identification of an algal, archaeal, bacterial, fungal and
CC parasitical species, genus, family and group. A nucleic acid (I) obtained
CC using the method of the invention can be used for the universal detection
CC of any bacterium, fungus or parasite in a sample and for the detection of
CC at least one antimicrobial agent resistance gene or at least one toxin
CC gene. hexA nucleic acids are used for the specific and ubiquitous
CC detection and for identification of Streptococcus pneumoniae. (I) can be
CC used to design a therapeutic agent which is effective against
CC microorganisms. Microbial species or genus or family or phylum or group
CC which can be detected include Abiotrophia adiacens, Bordetella sp.,
CC Corynebacterium sp., Enterobacteriaceae group, Escherichia coli,
CC Mycobacteriaceae family, Pseudomonads group, Streptococcus sp., Neisseria
CC gonorrhoeae and Staphylococcus sp. . Using DNA based tests provides faster
CC results than substrate specificity tests as results can be determined in
CC an hour and improved accuracy is also achieved. AAH00010 to AAH002304
CC represent nucleotide sequences and primers/probes which are given in the
CC exemplification of the present invention
XX
SQ Sequence 20 BP; 7 A; 2 C; 3 G; 8 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 20;
Best Local Similarity 75.0%; Pred. No. 6.3e+03;
Matches 15; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1245 AAGAATTCACAGAACTTCTC 1264
|| |||| || |||| | ||
Db 20 AATAATTTACGGAACATTTC 1

RESULT 5511
ABI94721
ID ABI94721 standard; DNA; 20 BP.
XX
AC ABI94721;
XX
DT 16-FEB-2002 (first entry)
XX
DE Capture oligonucleptide Zip ID#1808 oligo #9.
XX
KW Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW oncogene; tumour suppressor; human papillomavirus; forensic;
KW environmental monitoring; food industry; feed industry; ss.
XX
OS Synthetic.
XX
PN WO200179548-A2.
XX
PD 25-OCT-2001.
XX
PF 04-APR-2001; 2001WO-US010958.
XX
PR 14-APR-2000; 2000US-0197271P.
XX
PA (CORR) CORNELL RES FOUND INC.
XX
PI Barany F, Zirvi M, Gerry NP, Favis R, Kliman R;
XX
DR WPI; 2002-034366/04.
XX
PT Designing capture oligonucleotide probes for use on a support to which
PT complementary oligonucleotides hybridize with little mismatch.
XX
PS Example 5; Fig 29; 300pp; English.
XX
CC The present invention describes a method (M1) for designing capture
CC oligonucleotide probes (I) for use on a support to which complementary
CC oligonucleotide probes (II) will hybridise with little mismatch, where
CC (I) have melting temperatures within a narrow range. The method is useful
CC for detecting infectious diseases caused by bacterial infectious agents
CC e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,

PT toxicological analysis, involves determining or comparing the expression
PT levels of at least one endogenous gene.
XX
PS Example 3; Page 27; 77pp; English.
XX
CC The sequence represents a downstream PCR primer used in a DDRT-PCR
CC experiment (and in cDNA synthesis), demonstrating the method of the
CC invention. The method relates to evaluating a cellular response to an
CC environmental compound, comprising determining or comparing the
CC expression levels of at least one endogenous gene e.g by differential
CC display of reverse transcribed mRNAs by PCR (DDRT-PCR). The method can be
CC adapted to identify compounds that act on the level of endogenous gene
CC expression through activating nuclear receptors. The method is useful in
CC toxicological analysis, diagnostics, for diagnosing cancer (e.g.
CC testicular, breast, prostate and endometrium), asthma, hypospadia,
CC cryptorchism and/or allergy, and for evaluating the efficiency of a
CC treatment for hormonal deficiency or hormonal replacement therapy, in a
CC human such as a post-menopausal female. The method is also useful for
CC identifying environmental chemicals or pharmaceutical compositions that
CC interact with endocrine systems, and for detecting chemicals that pose a
CC health threat. Expression levels of endogenous genes are determined
CC rapidly using a sensitive technique, and the expression of any gene can
CC be monitored. The assays are far more informative than the currently used
CC assays, and significantly reduces the number of animals required for the
CC testing, as it is expected that essentially all the animals in a test
CC group will respond to the compound
XX
SQ Sequence 17 BP; 2 A; 3 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 5.6e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5508
AAS06657/c
ID AAS06657 standard; DNA; 17 BP.
XX
AC AAS06657;
XX
DT 12-SEP-2001 (first entry)
XX
DE Human cDNA synthesis and differential display primer, HT11CT.
XX
KW Human; Estrogen response element; ERE; DDRT-PCR; ss; PCR primer;
KW differential display of reverse transcribed mRNAs by PCR;
KW testicular cancer; breast cancer; prostate cancer; endometrial cancer;
KW asthma; hypospadia; cryptorchism; allergy; hormone replacement therapy;
KW HRT; endocrine system; HT11CT.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200134834-A2.
XX
PD 17-MAY-2001.
XX
PF 10-NOV-2000; 2000WO-DK000628.
XX
PR 11-NOV-1999; 99DK-00001626.
XX
PA (RIGS-) RIGSHOSPITALET.
XX
PI Leffers H, Jorgensen M, Skakkebaek NE;
XX
DR WPI; 2001-335941/35.
XX
PT Evaluating a cellular response to an environmental compound, for use in
PT toxicological analysis, involves determining or comparing the expression
PT levels of at least one endogenous gene.
XX
PS Example 3; Page 27; 77pp; English.
XX
CC The sequence represents a downstream PCR primer used in a DDRT-PCR
CC experiment (and in cDNA synthesis), demonstrating the method of the
CC invention. The method relates to evaluating a cellular response to an
CC environmental compound, comprising determining or comparing the
CC expression levels of at least one endogenous gene e.g by differential
CC display of reverse transcribed mRNAs by PCR (DDRT-PCR). The method can be
CC adapted to identify compounds that act on the level of endogenous gene
CC expression through activating nuclear receptors. The method is useful in
CC toxicological analysis, diagnostics, for diagnosing cancer (e.g.
CC testicular, breast, prostate and endometrium), asthma, hypospadia,
CC cryptorchism and/or allergy, and for evaluating the efficiency of a
CC treatment for hormonal deficiency or hormonal replacement therapy, in a
CC human such as a post-menopausal female. The method is also useful for
CC identifying environmental chemicals or pharmaceutical compositions that
CC interact with endocrine systems, and for detecting chemicals that pose a
CC health threat. Expression levels of endogenous genes are determined
CC rapidly using a sensitive technique, and the expression of any gene can
CC be monitored. The assays are far more informative than the currently used
CC assays, and significantly reduces the number of animals required for the
CC testing, as it is expected that essentially all the animals in a test
CC group will respond to the compound
XX
SQ Sequence 17 BP; 2 A; 2 C; 1 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 5.6e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5509
ACC64290/c
ID ACC64290 standard; DNA; 17 BP.
XX
AC ACC64290;
XX
DT 01-JUL-2003 (first entry)
XX
DE Murine oligonucleotide associated with tumour supression, SEQ ID 1537.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine;
KW tumour suppression; tumour reversion; apoptosis; virus resistance;
KW viral disease; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; ss.
XX
OS Mus musculus.
XX
PN WO2003025176-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB004210.
XX
PR 17-SEP-2001; 2001FR-00011979.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-333167/31.
XX
PT New isolated nucleic acid, useful for treating viral diseases associated
PT with tumors and cell degeneration, also related polypeptides, antibodies
PT and transfected cells.
XX
PS Disclosure; Page 210; 738pp; French.

KW ss; crosslinking; dermatological; cosmetic; skin; hair; primer; PCR.
XX
OS Synthetic.
XX
PN WO2003082923-A1.
XX
PD 09-OCT-2003.
XX
PF 09-AUG-2002; 2002WO-JP008179.
XX
PR 03-APR-2002; 2002JP-00101185.
XX
PA (FUJI/) FUJIWARA H.
XX
PI Fujiwara H;
XX
DR WPI; 2003-853757/79.
XX
PT Treatment of tyrosine-containing polypeptides with phenol oxidase to
PT produce crosslinking for control of hardness of polymers for industrial,
PT cosmetic, or pharmaceutical use.
XX
PS Example 1; SEQ ID NO 2; 126pp; Japanese.
XX
CC The invention relates to a novel process for crosslinking polypeptides
CC containing one or more tyrosine residues surrounded by amino acid
CC residues which are electrically neutral and contain side-chains of low
CC molecular weight (not more than 132 Da) by treating the polypeptides with
CC a phenol oxidase. The process of the invention has dermatological
CC activity. The method is useful for raising or lowering the hardness of a
CC polymer by controlling the degree of crosslinking, and for industrial,
CC cosmetic or medical purposes, e.g. for treatment of skin or hair. The
CC present sequence is used in the exemplification of the invention.
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5506
ABK87931/c
ID ABK87931 standard; DNA; 16 BP.
XX
AC ABK87931;
XX
DT 07-OCT-2002 (first entry)
XX
DE Anchored oligo-dT primer, H-T11G, used for differential display.
XX
KW Human; PCR; primer; H-T11G; ss; CC214; cervical cancer 2; HCCR-2;
KW protooncogene; cytostatic; tumourigenesis; cervical cancer; cancer;
KW leukaemia; lymphoma; antisense; gene therapy; carcinogen; anticancer;
KW antioxidant.
XX
OS Synthetic.
XX
PN WO200244370-A1.
XX
PD 06-JUN-2002.
XX
PF 09-JUL-2001; 2001WO-KR001172.
XX
PR 28-NOV-2000; 2000KR-00071202.
XX
PA (KIMJ/) KIM J W.
XX
PI Kim JW;
XX
DR WPI; 2002-557542/59.
XX
PT Novel human cervical cancer 2 protooncogene protein and polynucleotide
PT encoding it useful for diagnosing various cancers e.g. leukemia, lymphoma
PT or uterine cervix cancer, and for producing transformed animals.
XX
PS Disclosure; Page 47; 49pp; English.
XX
CC The invention discloses a human cervical cancer 2 (HCCR-2) protooncogene
CC and encoded protein. The protooncogene was discovered using mRNA
CC differential display, identifying it as being amplified in cancer cells
CC and, more specifically, involved in the tumourigenesis of cervical
CC cancer. HCCR-2 is useful for preventing, diagnosing or treating cancer,
CC including leukaemia, lymphoma, colon, breast, kidney, stomach, lung,
CC ovary or uterine cervix cancer. HCCR-2 is also useful for producing
CC antibodies which are useful as diagnostic tools. HCCR-2 protooncogene is
CC useful in the diagnosis of various cancers, in antisense gene therapy and
CC for producing transformed animals which are useful in screening for
CC carcinogens or anticancer agents, such as antioxidants. The protooncogene
CC is also useful for establishing a continuous viable cancer cell line
CC which is useful in searching for anticancer agents. The sequence
CC presented is the anchored oligo-dT primer, H-T11G, which was used to
CC amplify cDNA for differential display. This technique identified a cDNA
CC fragment, designated CC214, which was then used as a probe to isolate the
CC full length cDNA (cervical cancer 2 (HCCR-2) protooncogene) from a human
CC lung embryonic fibroblast cDNA library
XX
SQ Sequence 16 BP; 2 A; 0 C; 2 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAA 2797
||||||||||||
Db 15 AAAAAAAAAAAA 4

RESULT 5507
AAS06656/c
ID AAS06656 standard; DNA; 17 BP.
XX
AC AAS06656;
XX
DT 12-SEP-2001 (first entry)
XX
DE Human cDNA synthesis and differential display primer, HT11CC.
XX
KW Human; Estrogen response element; ERE; DDRT-PCR; ss; PCR primer;
KW differential display of reverse transcribed mRNAs by PCR;
KW testicular cancer; breast cancer; prostate cancer; endometrial cancer;
KW asthma; hypospadia; cryptorchism; allergy; hormone replacement therapy;
KW HRT; endocrine system; HT11CC.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200134834-A2.
XX
PD 17-MAY-2001.
XX
PF 10-NOV-2000; 2000WO-DK000628.
XX
PR 11-NOV-1999; 99DK-00001626.
XX
PA (RIGS-) RIGSHOSPITALET.
XX
PI Leffers H, Jorgensen M, Skakkebaek NE;
XX
DR WPI; 2001-335941/35.
XX
PT Evaluating a cellular response to an environmental compound, for use in

```
CC   useful in the diagnosis of various cancers, in antisense gene therapy and
CC   for producing transformed animals which are useful in screening for
CC   carcinogens or anticancer agents, such as antioxidants. The protooncogene
CC   is also useful for establishing a continuous viable cancer cell line
CC   which is useful in searching for anticancer agents. The sequence
CC   presented is the anchored oligo-dT primer, H-T11C, which was used to
CC   amplify cDNA for differential display. This technique identified a cDNA
CC   fragment, designated CC214, which was then used as a probe to isolate the
CC   full length cDNA (cervical cancer 2 (HCCR-2) protooncogene) from a human
CC   lung embryonic fibroblast cDNA library
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5503
ABZ21815/c
ID   ABZ21815 standard; DNA; 16 BP.
XX
AC   ABZ21815;
XX
DT   03-MAR-2003  (first entry)
XX
DE   Anti-cancer drug resistance related oligonucleotide #2.
XX
KW   Anti-cancer; drug resistance; lung cancer; head and neck cancer; ss.
XX
OS   Synthetic.
XX
PN   KR2002031530-A.
XX
PD   02-MAY-2002.
XX
PF   20-OCT-2000; 2000KR-00062030.
XX
PR   20-OCT-2000; 2000KR-00062030.
XX
PA   (PHAR-) PHARMGENIA CO LTD.
XX
PI   Jun SH;
XX
DR   WPI; 2002-737801/80.
XX
PT   DNA sequences relating to anti-cancer drug resistance and the use
PT   thereof.
XX
PS   Disclosure; Page 4; 34pp; Korean.
XX
CC   The present invention describes DNA sequences relating to anti-cancer
CC   drug resistance. The DNA sequences can be used as a component of a kit or
CC   a DNA chip for detecting the presence of anti-cancer resistance. The
CC   method for identifying and sequencing the DNA sequences comprises
CC   obtaining an anti-cancer sensitive cancer tissue and an anti-cancer drug
CC   resistant cancer tissue from patients suffering from lung cancer and head
CC   and neck cancer, isolating mRNAs from the tissues, preparing cDNAs of the
CC   tissues from mRNAs using reverse transcriptase; finding genes showing the
CC   increase or decrease of gene expression in the cancer tissues before and
CC   after the anti-cancer drug treatment using differential display of
CC   polymerase chain reaction (PCR), subjecting the genes to electrophoresis,
CC   amplifying the cDNAs by using PCR, sub-cloning the amplified cDNAs into
CC   pGEM-Teasy plasmid, and sequencing the cDNA using an auto-sequencing
CC   machine. The present sequence represents an oligonucleotide which is used
CC   in the exemplification of the present invention
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5504
ABZ70966/c
ID   ABZ70966 standard; DNA; 16 BP.
XX
AC   ABZ70966;
XX
DT   24-APR-2003  (first entry)
XX
DE   Human cervical cancer proto-oncogene 7 related PCR primer SEQ ID NO:3.
XX
KW   Human; cervical cancer proto-oncogene 7; HCC-7 proto-oncogene; cancer;
KW   cytostatic; vaccine; gene therapy; chromosome 5; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003002743-A1.
XX
PD   09-JAN-2003.
XX
PF   27-JUN-2002; 2002WO-KR001226.
XX
PR   28-JUN-2001; 2001KR-00037588.
XX
PA   (KIMJ/) KIM J W.
XX
PI   Kim JW;
XX
DR   WPI; 2003-201506/19.
XX
PT   New human cervical cancer proto-oncogene, useful for preparing a
PT   composition for preventing or treating cancer.
XX
PS   Example 2; Page 27; 28pp; English.
XX
CC   The present invention describes a human cervical cancer proto-oncogene 7
CC   (HCC-7 proto-oncogene). HCC-7 proto-oncogene is located on human
CC   chromosome 5. HCC-7 proto-oncogene has cytostatic activity and can be
CC   used in vaccines and gene therapy. HCC-7 proto-oncogene can be used for
CC   preparing a composition for preventing or treating cancer. The HCC-7
CC   protein expressed from the proto-oncogene is useful for producing an
CC   antibody for diagnosing cancer. The present sequence represents a PCR
CC   primer which is used in an example from the present invention
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5505
ADD26194/c
ID   ADD26194 standard; DNA; 16 BP.
XX
AC   ADD26194;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Primer relating to the invention H-T11C SEQ ID NO:2.
XX
```

PF 16-AUG-2001; 2001WO-GB003650.
XX
PR 22-AUG-2000; 2000SE-00002973.
XX
PA (ASTR) ASTRAZENECA AB.
PA (ASTR) ASTRAZENECA UK LTD.
XX
PI Brodin P, Thelin A;
XX
DR WPI; 2002-269365/31.
XX
PT Use of a modulator of ADAMTS-1 (a disintegrin and metalloproteinase) for
PT the treatment of obesity, insulin resistance syndrome (IRS), non-insulin
PT dependent diabetes mellitus (NIDDM) or atherosclerosis.
XX
PS Example 1; Page 39; 47pp; English.
XX
CC The invention relates to the use of modulators of A Disintegrin And
CC Metalloproteinase (ADAM) with Thrombospondin type 1 motif (ADAMTS-1)
CC which are used in the preparation of a medicament for the treatment of
CC obesity, insulin resistance syndrome (IRS), non-insulin dependent
CC diabetes mellitus (NIDDM) and atherosclerosis. The invention also relates
CC to methods for screening specific modulators of ADAMTS-1 activity. The
CC present sequence is a PCR primer used to determine the role of ADAMTS-1
CC in IRS, obesity, NIDDM and atherosclerosis
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5501
ABK12622/c
ID ABK12622 standard; DNA; 16 BP.
XX
AC ABK12622;
XX
DT 18-JUN-2002 (first entry)
XX
DE Mouse E4 protein, PCR primer H-T11-C.
XX
KW Mouse; E4; insulin resistance syndrome; NIDDM; dyslipidaemia; obesity;
KW non-insulin dependent diabetes mellitus; atherosclerosis; primer; ss.
XX
OS Mus sp.
OS Synthetic.
XX
PN WO200218568-A2.
XX
PD 07-MAR-2002.
XX
PF 23-AUG-2001; 2001WO-GB003828.
XX
PR 28-AUG-2000; 2000US-0228117P.
PR 10-APR-2001; 2001US-0282496P.
XX
PA (ASTR) ASTRAZENECA AB.
PA (ASTR) ASTRAZENECA UK LTD.
XX
PI Brodin P, Thelin A;
XX
DR WPI; 2002-304254/34.
XX
PT New isolated polynucleotide encoding E4 gene involved in insulin
PT resistance syndrome, useful for identifying chemical compound useful for
PT controlling e.g. non-insulin dependent diabetes mellitus.
XX
PS Example 3; Page 19; 46pp; English.
XX
CC The invention relates to an isolated polynucleotide (I) molecule
CC comprising a nucleotide sequence which encodes an E4 polypeptide (II) or
CC its fragment of at least 10 amino acids. (II) is useful for identifying a
CC chemical compound capable of modulating the activity of E4 by contacting
CC the chemical compound with (II) or a transgenic non-human mammal and
CC measuring any effect of chemical compound on the activity of (II) or
CC transgenic non-human mammal, where the identifying method is useful for
CC making a pharmaceutical composition, which comprises mixing the compound
CC thus identified with a carrier, and the compound is preferably an
CC antibody that is useful for controlling insulin resistance syndrome and
CC other related disorders such as non-insulin dependent diabetes mellitus
CC (NIDDM), dyslipidaemia, obesity, and atherosclerosis. The present
CC sequence represents a PCR primer used to isolate the coding sequence of
CC mouse E4 protein
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5502
ABK87932/c
ID ABK87932 standard; DNA; 16 BP.
XX
AC ABK87932;
XX
DT 07-OCT-2002 (first entry)
XX
DE Anchored oligo-dT primer, H-T11C, used for differential display.
XX
KW Human; PCR; primer; H-T11C; ss; CC214; cervical cancer 2; HCCR-2;
KW protooncogene; cytostatic; tumourigenesis; cervical cancer; cancer;
KW leukaemia; lymphoma; antisense; gene therapy; carcinogen; anticancer;
KW antioxidant.
XX
OS Synthetic.
XX
PN WO200244370-A1.
XX
PD 06-JUN-2002.
XX
PF 09-JUL-2001; 2001WO-KR001172.
XX
PR 28-NOV-2000; 2000KR-00071202.
XX
PA (KIMJ/) KIM J W.
XX
PI Kim JW;
XX
DR WPI; 2002-557542/59.
XX
PT Novel human cervical cancer 2 protooncogene protein and polynucleotide
PT encoding it useful for diagnosing various cancers e.g. leukemia, lymphoma
PT or uterine cervix cancer, and for producing transformed animals.
XX
PS Example 1; Page 47; 49pp; English.
XX
CC The invention discloses a human cervical cancer 2 (HCCR-2) protooncogene
CC and encoded protein. The protooncogene was discovered using mRNA
CC differential display, identifying it as being amplified in cancer cells
CC and, more specifically, involved in the tumourigenesis of cervical
CC cancer. HCCR-2 is useful for preventing, diagnosing or treating cancer,
CC including leukaemia, lymphoma, colon, breast, kidney, stomach, lung,
CC ovary or uterine cervix cancer. HCCR-2 is also useful for producing
CC antibodies which are useful as diagnostic tools. HCCR-2 protooncogene is

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RESULT 5498
ABK87149/c
ID   ABK87149 standard; DNA; 16 BP.
XX
AC   ABK87149;
XX
DT   07-OCT-2002  (first entry)
XX
DE   Scarlet runner bean anchor/reverse RT-PCR primer C.
XX
KW   Expression cassette; promoter activity; suspensor cell; plant embryo;
KW   modulation of gene transcription; Scarlet runner bean; RT-PCR;
KW   reverse transcriptase-PCR; primer; transgenic; ss.
XX
OS   Phaseolus coccineus.
OS   Synthetic.
XX
PN   WO200244333-A2.
XX
PD   06-JUN-2002.
XX
PF   28-NOV-2001; 2001WO-US044737.
XX
PR   28-NOV-2000; 2000US-00724857.
PR   28-NOV-2000; 2000US-0253672P.
XX
PA   (REGC ) UNIV CALIFORNIA.
PA   (CERE-) CERES INC.
XX
PI   Weterings K,  Apuya NR,  Tatarinova T,  Goldberg RB;
XX
DR   WPI; 2002-508506/54.
XX
PT   Expression cassette comprises promoters with basal promoter activity
PT   operably linked to a heterologous polynucleotide, useful for expression
PT   genes in suspensor cells in plants and/or basal region of plant embryo.
XX
PS   Example; Page 54; 114pp; English.
XX
CC   The present invention relates to expression cassettes comprising a
CC   promoter sequence and a promoter polynucleotide with basal promoter
CC   activity, where the promoter sequence is operably linked to a
CC   heterologous polynucleotide, and when the expression cassette is inserted
CC   into a plant, the heterologous polynucleotide is specifically expressed
CC   in a suspensor cell and/or basal region of a plant embryo. The invention
CC   also provides polynucleotide sequences encoding Scarlet runner bean
CC   (Phaseolus coccineus) G564 and C541 proteins for use in the expression
CC   cassettes of the invention. The expression cassettes comprising promoters
CC   and promoter control elements are useful for modulating transcription of
CC   genes in a plant suspensor cell and/or basal region of a plant embryo.
CC   The present sequence represents an anchor/reverse reverse transcriptase
CC   (RT)-PCR primer used in the examples of the present invention
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5499
AAD34284/c
ID   AAD34284 standard; DNA; 16 BP.
XX
AC   AAD34284;
XX
DT   16-JUL-2002  (first entry)
XX
DE   Mouse E2 cDNA amplifying PCR primer, H-T11-C.
XX
KW   Mouse; metabolism; E2 gene; insulin resistance syndrome; dyslipidaemia;
KW   therapy; non-insulin dependent diabetes mellitus; NIDDM; antilipaemic;
KW   obesity; atherosclerosis; antiarteriosclerotic; anorectic; PCR; primer;
KW   ss.
XX
OS   Mus sp.
XX
PN   WO200218421-A2.
XX
PD   07-MAR-2002.
XX
PF   23-AUG-2001; 2001WO-GB003807.
XX
PR   28-AUG-2000; 2000US-0228118P.
XX
PA   (ASTR ) ASTRAZENECA AB.
PA   (ASTR ) ASTRAZENECA UK LTD.
XX
PI   Brodin P,  Thelin A;
XX
DR   WPI; 2002-329753/36.
XX
PT   New E2 genes and proteins, useful for identifying or manufacturing agents
PT   for controlling insulin resistance syndrome or related disorders, e.g.
PT   non-insulin dependent diabetes mellitus, dyslipidemia or atherosclerosis.
XX
PS   Example 3; Page 19; 52pp; English.
XX
CC   The invention relates to the regulation of metabolism and in particular
CC   to a gene named E2 involved in insulin resistance syndrome. E2 gene and
CC   protein are useful for identifying therapeutic agents for controlling
CC   insulin resistance syndrome and other related disorders. They are
CC   particularly useful in manufacturing compositions or pharmaceutical for
CC   controlling the disorders. Particularly, the chemical compound or
CC   composition is useful for controlling insulin resistance syndrome and
CC   other related disorders, e.g. non-insulin dependent diabetes mellitus
CC   (NIDDM), dyslipidaemia, obesity or atherosclerosis. The present sequence
CC   is a PCR primer used to amplify mouse E2 cDNA
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5500
AAD32156/c
ID   AAD32156 standard; DNA; 16 BP.
XX
AC   AAD32156;
XX
DT   18-JUN-2002  (first entry)
XX
DE   H-T11-C PCR primer, to determine ADAMTS-1 role in IRS and obesity.
XX
KW   A disintegrin and metalloproteinase with thrombospondin type 1 motif;
KW   ADAMTS-1; non-insulin dependent diabetes mellitus; ADAM; obesity; IRS;
KW   insulin resistance syndrome; NIDDM; atherosclerosis; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   WO200216632-A1.
XX
PD   28-FEB-2002.
XX
```

PT actin promoter, useful for producing transgenic fruit-bearing plants.
XX
PS Example 1; Page 35; 72pp; English.
XX
CC The present sequence is a PCR primer which was used to isolate and
CC amplify the promoter of the banana fruit-associated TRX (also known as
CC the G1A) gene. This was isolated from a banana library using differential
CC display analysis for banana-specific transcripts. The promoters of the
CC invention can be used to produce transgenic fruit, with altered or
CC improved characteristics, in particular their ripening, their nutritional
CC content and the expression of useful proteins
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5496
AAF83582/c
ID AAF83582 standard; DNA; 16 BP.
XX
AC AAF83582;
XX
DT 23-JUL-2001 (first entry)
XX
DE B. gymnorrhiza salt-tolerance cDNA amplifying primer H-T11C.
XX
KW Salt-stress; genetic modification; salt tolerance; PCR primer; ss.
XX
OS Bruguiera gymnorrhiza.
XX
PN WO200130999-A1.
XX
PD 03-MAY-2001.
XX
PF 28-JUL-2000; 2000WO-JP005102.
XX
PR 22-OCT-1999; 99JP-00301621.
PR 20-DEC-1999; 99JP-00361107.
XX
PA (EBAR) EBARA CORP.
XX
PI Karube I, Hanagata N;
XX
DR WPI; 2001-308636/32.
XX
PT Nucleotide sequences, useful for generating salt-tolerant transgenic
PT plants, obtained from the leaves of Bruguiera gymnorrhiza subjected to
PT 500 mM NaCl.
XX
PS Example 2; Page 15; 49pp; English.
XX
CC The invention provides nucleotide sequences highly expressed in salt-
CC stressed leaves of Bruguiera gymnorrhiza. The invention is useful to
CC provide salt tolerant plants by genetic modification. Plants transformed
CC with the DNA sequences have improved salt tolerance. Sequences AAF83580 -
CC 592 represent PCR primers for amplifying B. gymnorrhiza salt tolerance
CC gene associated cDNA fragments
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5497
AAS06650/c
ID AAS06650 standard; DNA; 16 BP.
XX
AC AAS06650;
XX
DT 12-SEP-2001 (first entry)
XX
DE Human cDNA synthesis and differential display primer, HT11C.
XX
KW Human; Estrogen response element; ERE; DDRT-PCR; ss; PCR primer;
KW differential display of reverse transcribed mRNAs by PCR;
KW testicular cancer; breast cancer; prostate cancer; endometrial cancer;
KW asthma; hypospadia; cryptorchism; allergy; hormone replacement therapy;
KW HRT; endocrine system; HT11C.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200134834-A2.
XX
PD 17-MAY-2001.
XX
PF 10-NOV-2000; 2000WO-DK000628.
XX
PR 11-NOV-1999; 99DK-00001626.
XX
PA (RIGS-) RIGSHOSPITALET.
XX
PI Leffers H, Jorgensen M, Skakkebaek NE;
XX
DR WPI; 2001-335941/35.
XX
PT Evaluating a cellular response to an environmental compound, for use in
PT toxicological analysis, involves determining or comparing the expression
PT levels of at least one endogenous gene.
XX
PS Example 3; Page 27; 77pp; English.
XX
CC The sequence represents a downstream PCR primer used in a DDRT-PCR
CC experiment (and in cDNA synthesis), demonstrating the method of the
CC invention. The method relates to evaluating a cellular response to an
CC environmental compound, comprising determining or comparing the
CC expression levels of at least one endogenous gene e.g by differential
CC display of reverse transcribed mRNAs by PCR (DDRT-PCR). The method can be
CC adapted to identify compounds that act on the level of endogenous gene
CC expression through activating nuclear receptors. The method is useful in
CC toxicological analysis, diagnostics, for diagnosing cancer (e.g.
CC testicular, breast, prostate and endometrium), asthma, hypospadia,
CC cryptorchism and/or allergy, and for evaluating the efficiency of a
CC treatment for hormonal deficiency or hormonal replacement therapy, in a
CC human such as a post-menopausal female. The method is also useful for
CC identifying environmental chemicals or pharmaceutical compositions that
CC interact with endocrine systems, and for detecting chemicals that pose a
CC health threat. Expression levels of endogenous genes are determined
CC rapidly using a sensitive technique, and the expression of any gene can
CC be monitored. The assays are far more informative than the currently used
CC assays, and significantly reduces the number of animals required for the
CC testing, as it is expected that essentially all the animals in a test
CC group will respond to the compound
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

PN WO9907893-A1.
XX
PD 18-FEB-1999.
XX
PF 05-AUG-1998; 98WO-US016343.
XX
PR 08-AUG-1997; 97US-00908873.
XX
PA (UNIW) UNIV WASHINGTON.
XX
PI Swisshelm K, Hosier S, Kubbies M;
XX
DR WPI; 1999-167454/14.
XX
PT Newly isolated nucleic acid molecule (designated p23) encoding a p23
PT polypeptide - useful for inducing a senescence phenotype in a cell.
XX
PS Example 1; Page 18; 44pp; English.
XX
CC The present invention describes human senescence factor p23. An
CC expression vector for p23 is useful for inducing a senescent phenotype in
CC a cell (preferably eukaryotic). This may help in regulating diseases,
CC including cancer, persistent inflammation, and various proliferative and
CC degenerative disorders. These transgenic cells are useful in gene therapy
CC for treating cancer, particularly where antisense oligonucleotides are
CC useful for blocking normal or mutant p23 expression in cancer cells or
CC other proliferating cells. Transgenic cells are also useful for producing
CC the p23 polypeptide in large quantities. The antibodies are useful for
CC raising antiserum against p23, and for identifying senescent cells in
CC culture and tissue biopsies. The p23 polynucleotides are useful for
CC modulating or altering p23 activity in a cell, and for identifying and
CC isolating the whole gene encoding p23, and variants of p23. Assays based
CC on p23 elements, which detect p23 levels and activity are useful as
CC diagnostic markers for staging tumours, determining prognosis, and/or
CC predicting therapeutic success. These elements also provide an assay for
CC detecting chromosomal rearrangements in chromosome 3 in a human cell. The
CC isolation of the p23 polynucleotide permits the manipulation of malignant
CC growth in cancer. The present sequence represents a primer used in an
CC example from the present invention
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5494
AAA60992/c
ID AAA60992 standard; DNA; 16 BP.
XX
AC AAA60992;
XX
DT 09-NOV-2000 (first entry)
XX
DE Rapid analysis of differential expression oligonucleotide.
XX
KW Oestrogen receptor; ER-alpha; ER-beta; identification; screening;
KW selective modulator; metallothionein; ss.
XX
OS Synthetic.
XX
PN WO200037681-A1.
XX
PD 29-JUN-2000.
XX
PF 17-DEC-1999; 99WO-US029856.
XX
PR 18-DEC-1998; 98US-0112790P.
XX
PA (AMHP) AMERICAN HOME PROD CORP.
XX
PI Harris H, Bhat RA;
XX
DR WPI; 2000-442693/38.
XX
PT Screening for a test compound that binds to an estrogen receptor in a
PT receptor binding assay comprising detecting estrogen receptor polypeptide
PT mediated transcription.
XX
PS Example 3; Page 28; 77pp; English.
XX
CC The present invention describes a method for screening a test compound
CC that binds to an ER (oestrogen receptor) in a receptor binding assay. The
CC method comprises: (a) providing a cell which comprises at least one
CC oestrogen-regulated DNA sequence encoding MT-II (metallothionein) and at
CC least one DNA sequence encoding ER-beta polypeptide; (b) contacting the
CC cell with either the test compound; and (c) detecting the expression of
CC the MT-II. The method is useful for screening a test compound that binds
CC to an ER in a receptor binding assay by detecting (the inhibition of) ER-
CC beta polypeptide mediated transcription and identifying drug candidates
CC which mimic or inhibit oestrogen's effects on ER-beta or ER-alpha
CC mediated transcription. The screening method is also useful for
CC identifying tissue specific oestrogens. The method is adapted to a high
CC throughput screen, allowing multiplicity of compounds to be tested in a
CC single assay. The ER-beta binding assays are advantageous in
CC accommodating many different types of solvents and therefore allowing the
CC testing of compounds from many sources. The present sequence represents
CC an oligonucleotide which is used in an example from the present
CC invention, for RADE (rapid analysis of differential expression)
XX
SQ Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

Query Match 0.4%; Score 12; DB 1; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.1e+03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2785 GAAAAAAAAAAA 2796
||||||||||||
Db 16 GAAAAAAAAAAA 5

RESULT 5495
AAA94103/c
ID AAA94103 standard; DNA; 16 BP.
XX
AC AAA94103;
XX
DT 30-JAN-2001 (first entry)
XX
DE Fruit-associated banana TRX gene PCR primer H-T11C.
XX
KW Banana; fruit-associated TRX gene; promoter; G1A; transgenic plant;
KW fruit ripening; nutrition; PCR primer; ss.
XX
OS Musa acuminata.
XX
PN WO200056863-A1.
XX
PD 28-SEP-2000.
XX
PF 17-MAR-2000; 2000WO-US007293.
XX
PR 19-MAR-1999; 99US-0125310P.
XX
PA (AGRI-) AGRITOPE INC.
XX
PI Clendennen SK, Kellogg JA, Phan CB, Mathews HV, Webb NM;
XX
DR WPI; 2000-628259/60.
XX
PT Nucleic acid molecule encoding banana fruit associated promoter and melon

```
ID   AAD30518 standard; DNA; 15 BP.
XX
AC   AAD30518;
XX
DT   31-MAY-2002  (first entry)
XX
DE   Oligonucleotide used to identify human EER-7 cDNA.
XX
KW   Human; lysyl oxidase; LO gene; endothelial estrogen regulated gene; AAA;
KW   abdominal aortic aneurysms; EER-7 gene; myocardial infraction; elastin;
KW   fibrotic disease; gene therapy; cardiant; ss.
XX
OS   Unidentified.
XX
PN   WO200212470-A2.
XX
PD   14-FEB-2002.
XX
PF   08-AUG-2001; 2001WO-US024942.
XX
PR   08-AUG-2000; 2000US-0223763P.
PR   15-DEC-2000; 2000US-0255838P.
XX
PA   (AMHP ) AMERICAN HOME PROD CORP.
XX
PI   Evans MJ,  Scicchitano MS,  Bapat AR,  Beer E,  Bhat RA,  Ferris E;
PI   Mastroeni R,  Zhang J,  Karathanasis SK;
XX
DR   WPI; 2002-227150/28.
XX
PT   Novel isolated endothelial estrogen regulated gene protein comprising
PT   lysyl oxidase activity and conserved catalytic domain of lysyl oxidase,
PT   useful as target to treat abdominal aortic aneurysms, myocardial
PT   infarction.
XX
PS   Example 1; Page 46; 68pp; English.
XX
CC   The patent discloses novel lysyl oxidase (LO) genes, termed endothelial
CC   estrogen regulated (EER)-7 genes and their corresponding proteins. The
CC   invention also relates to an assay system to identify compounds that
CC   selectively modulate EER7 protein activity by interaction with estrogen
CC   receptors. Stimulation of LO enzyme activity of EER-7 acts as a target
CC   for abdominal aortic aneurysms (AAA) and myocardial infractions. Increase
CC   in EER-7 lysyl oxidase activity increases elastin cross-linking in the
CC   inner elastic lamina which prevents development of aneurysms. Increased
CC   EER-7 is also useful to increase collagen cross-linkings which increase
CC   tensile strength of vessel wall which also prevents aneurysms. Myocardial
CC   infraction is prevented by inhibiting rupture of fibrous cap that covers
CC   plaque in the coronary vessels. Increased tensile strength of the cap,
CC   resulting from increased LO activity helps preventing the infractions.
CC   Inhibition of LO activity is useful for treating fibrotic diseases.
CC   Stimulation of EER-7 proteins are useful for treating patients with
CC   estrogen-related disease states. Genetic variants of EER-7 can be
CC   detected to diagnose an EER-7 associated disease such as AAA or
CC   myocardial infarction. EER-7 polynucleotides are useful in gene therapy.
CC   The present DNA sequence is an oligonucleotide which is used to identify
CC   human EER-7 cDNA
XX
SQ   Sequence 15 BP; 1 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 4.6e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         15 GAAAAAAAAAAA 4


RESULT 5492
AAT75138/c
ID   AAT75138 standard; DNA; 16 BP.
XX
AC   AAT75138;
XX
DT   03-MAR-1998  (first entry)
XX
DE   Arbitrary anchor primer HC.
XX
KW   dhc-1; homocysteine; hypohomocysteinaemia; atherosclerosis; diagnosis;
KW   serum; Dami cell; PCR; arbitrary primer; messenger RNA pool; ss.
XX
OS   Synthetic.
XX
PN   WO9725440-A2.
XX
PD   17-JUL-1997.
XX
PF   02-JAN-1997;   97WO-CA000001.
XX
PR   03-JAN-1996;   96US-00582261.
XX
PA   (HAMI-) HAMILTON CIVIC HOSPITALS RES DEV INC.
XX
PI   Austin RC,  Hirsh J,  Weitz J;
XX
DR   WPI; 1997-372877/34.
XX
PT   Methods and polynucleotide(s) for diagnosing hyperhomocysteinaemia -
PT   and/or predisposition to develop premature atherosclerosis by detecting
PT   increased levels of serum homocysteine.
XX
PS   Disclosure; Page 22; 84pp; English.
XX
CC   Arbitrary RT-PCR primers (AAT75138-42) were used to amplify mRNA from
CC   cells exposed to hyperphysiological, normal or subphysiological levels of
CC   homocysteine. PCR products were separated on a sequencing gel and
CC   discrete fractions which were increased or decreased were identified.
CC   This method was used to identify mRNA and the corresponding cDNA which
CC   are increased in the cells of a patient having hyperhomocysteinaemia or a
CC   predisposition to homocysteine mediated atherosclerosis. These
CC   polynucleotides can be used for the diagnosis and treatment of
CC   atherosclerotic diseases and diseases of metabolism of sulphur containing
CC   amino acids (e.g. homocysteinaemia), which are associated with vascular
CC   damage and atherosclerotic disease, specifically unstable angina, acute
CC   myocardial infarction (heart attack), cerebrovascular accidents (stroke),
CC   hypertension, renal artery stenosis, aortic stenosis and deep vein
CC   occlusive disease
XX
SQ   Sequence 16 BP; 2 A; 2 C; 1 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.1e+03;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2785 GAAAAAAAAAAA 2796
              ||||||||||||
Db         16 GAAAAAAAAAAA 5


RESULT 5493
AAX19464/c
ID   AAX19464 standard; DNA; 16 BP.
XX
AC   AAX19464;
XX
DT   21-MAY-1999  (first entry)
XX
DE   Human senescence factor p23 H-T11 primer SEQ ID NO:6.
XX
KW   Human; senescence factor; p23; cancer; persistent inflammation;
KW   proliferative disorder; degenerative disorder; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
```

```
XX
CC   The invention relates to a composite binding polypeptide comprising a
CC   first natural binding domain derived from a first natural binding
CC   polypeptide and a second natural binding domain derived from a second
CC   natural binding polypeptide, where the first and second natural binding
CC   polypeptides may be the same or different and where the polypeptide binds
CC   to a target differing from the natural target of both the first and
CC   second binding polypeptides. The invention also relates to a chimeric
CC   polypeptide comprising a binding polypeptide cited above and a biological
CC   effector domain, a library of natural binding domains, a library of
CC   natural zinc finger nucleic acid binding domains comprising a linker
CC   attached to it, a method for selecting a binding polypeptide capable of
CC   binding to a target site and a method for designing a composite binding
CC   polypeptide. The methods and compositions of the present invention are
CC   useful for designing sequence-specific binding proteins for regulation of
CC   gene expression in the fields of molecular biology. They can also be used
CC   for the diagnosis and treatment of autoimmune disorders, and as research
CC   tools and in transgenic animals. This sequence represents human zinc
CC   finger binding motif DNA used in the scope of the invention
XX
SQ   Sequence 29 BP; 0 A; 2 C; 4 G; 23 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 29;
  Best Local Similarity   82.4%;  Pred. No. 5.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||||||||| || |
Db         29 AAAAAAAAAAACCAACA 13


RESULT 5489
AAF81549/c
ID   AAF81549 standard; DNA; 15 BP.
XX
AC   AAF81549;
XX
DT   05-JUN-2001  (first entry)
XX
DE   Dye-labeled molecule removal method related oligonucleotide #1.
XX
KW   Dye-labeled molecule removal; primer extension product purification;
KW   DNA sequencing; DNA analysis; ds.
XX
OS   Synthetic.
XX
PN   WO200125490-A1.
XX
PD   12-APR-2001.
XX
PF   05-OCT-2000; 2000WO-US027765.
XX
PR   06-OCT-1999;   99US-0158188P.
PR   08-NOV-1999;   99US-0164050P.
PR   03-MAY-2000; 2000US-00564117.
XX
PA   (PROL-) PROLINX INC.
XX
PI   Spicer DA,  Hughes KA,  Kaiser RJ,  Mahoney JE,  Springer AL;
PI   Stolowitz ML,  Weissman CHD;
XX
DR   WPI; 2001-245064/25.
XX
PT   Removing unincorporated dye-labeled molecules associated with DNA
PT   sequencing, comprises using particles made of porous hydrophobic
PT   materials encapsulated in a hydrophilic matrix.
XX
PS   Example 1; Page 23; 57pp; English.
XX
CC   The present invention describes a method of removing unincorporated dye-
CC   labeled molecules from a mixture of the molecules and polymers. This is
CC   useful in the purification of primer extension products, for example in
CC   DNA sequencing and analysis. The present sequence was used to demonstrate
CC   the method of the invention
XX
SQ   Sequence 15 BP; 1 A; 1 C; 1 G; 11 T; 0 U; 1 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 4.6e+03;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2784 TGAAAAAAAAAAA 2796
              | ||||||||||||
Db         15 TNAAAAAAAAAAA 3


RESULT 5490
AAH23587/c
ID   AAH23587 standard; DNA; 15 BP.
XX
AC   AAH23587;
XX
DT   03-AUG-2001  (first entry)
XX
DE   Dye-labeled dideoxy terminators removal related oligonucleotide #1.
XX
KW   Dye-labeled dideoxy terminator; DNA sequencing;
KW   nucleic acid purification; hydrophilic polymeric matrix; ds.
XX
OS   Synthetic.
XX
PN   WO200125491-A1.
XX
PD   12-APR-2001.
XX
PF   06-OCT-2000; 2000WO-US027895.
XX
PR   06-OCT-1999;   99US-0158188P.
PR   08-NOV-1999;   99US-0164050P.
PR   03-MAY-2000; 2000US-00564117.
XX
PA   (PROL-) PROLINX INC.
XX
PI   Spicer DA,  Hughes KA,  Kaiser RJ,  Mahoney JE,  Springer AL;
PI   Stolowitz ML,  Weissman CHD;
XX
DR   WPI; 2001-316173/33.
XX
PT   Removing unincorporated dye-labeled molecules from polymer incorporated
PT   with dye-labeled molecules, involves mixing and incubating the mixture
PT   with porous hydrophobic material entrapped within a hydrophilic matrix.
XX
PS   Example 1; Page 23; 58pp; English.
XX
CC   The present invention describes a method for removing unincorporated dye-
CC   labeled molecules from a mixture comprising dye-labeled molecules and a
CC   polymer into which dye-labeled molecules are incorporated, involving
CC   contacting the mixture with particles of a porous hydrophobic material
CC   entrapped within a hydrophilic matrix, incubating the mixture and
CC   removing the particles, thus removing the absorbed unincorporated dye-
CC   labeled molecules. This is useful for removing fluorescent and other dye-
CC   labeled molecules following procedures such as PCR
XX
SQ   Sequence 15 BP; 1 A; 1 C; 1 G; 11 T; 0 U; 1 Other;

  Query Match             0.4%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 4.6e+03;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2784 TGAAAAAAAAAAA 2796
              | ||||||||||||
Db         15 TNAAAAAAAAAAA 3


RESULT 5491
AAD30518/c
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```
PR   07-DEC-2001; 2001US-00008978.
XX
PA   (NANO-) NANOSPHERE INC.
XX
PI   Park S,  Taton TA,  Mirkin CA;
XX
DR   WPI; 2003-430409/40.
XX
PT   Detecting nucleic acid having two portions, by providing nanoparticles
PT   having oligonucleotides attached to it, contacting nucleic acid and
PT   nanoparticles to allow hybridization, and observing detectable change.
XX
PS   Disclosure; Fig 68; 467pp; English.
XX
CC   The invention relates to a method of detecting a nucleic acid having two
CC   portions. The method involves providing nanoparticles having
CC   oligonucleotides attached to it which has a sequence complementary to
CC   sequence of two portions of nucleic acid, contacting nucleic acid and
CC   nanoparticles to allow hybridisation of oligonucleotides with two or more
CC   portions of nucleic acid and observing a detectable change brought about
CC   by hybridisation. The method and aggregate probes are useful for
CC   detecting two or more nucleic acids (from a biological source) having at
CC   least two portions such as viral RNA, bacterial or fungal DNA, a gene
CC   associated with a disease, synthetic or structurally modified natural or
CC   synthetic RNA or DNA, or a product of a polymerase chain reaction
CC   amplification. The invention is useful for preparing a nanoprobe
CC   conjugate for detecting an analyte and for detecting a nucleic acid bound
CC   to an electrode surface. It is also useful for fabrication and for
CC   separating a selected nucleic acid having two portions from other nucleic
CC   acids. The present sequence is an oligo used to illustrate the method of
CC   the invention
XX
SQ   Sequence 25 BP; 15 A; 3 C; 0 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 25;
  Best Local Similarity   68.0%;  Pred. No. 5.9e+03;
  Matches   17;  Conservative    0;  Mismatches    8;  Indels    0;  Gaps    0;

Qy       1981 AAAAAGAAAAGTGTGTATCTAGCTT 2005
              ||||| |||| |   |||| |  ||
Db          1 AAAAAAAAAAATCCTTATCAATATT 25


RESULT 5487
ACD18468
ID   ACD18468 standard; DNA; 29 BP.
XX
AC   ACD18468;
XX
DT   25-AUG-2003  (first entry)
XX
DE   Human zinc finger binding motif DNA #17.
XX
KW   Composite binding polypeptide; zinc finger nucleic acid binding domain;
KW   autoimmune disorder; immunosuppressive; zinc finger binding motif; human;
KW   ss.
XX
OS   Homo sapiens.
XX
PN   WO200299084-A2.
XX
PD   12-DEC-2002.
XX
PF   04-APR-2002; 2002WO-US022272.
XX
PR   04-APR-2001; 2001GB-00008491.
XX
PA   (SANG-) SANGAMO BIOSCIENCES INC.
XX
PI   Moore M,  Sepp A,  Isalan M,  Choo Y;
XX
DR   WPI; 2003-278214/27.
XX
PT   New composite binding zinc finger polypeptide, useful for designing
PT   sequence-specific binding proteins regulating gene expression in the
PT   fields of molecular biology, and for the diagnosis and treatment of
PT   autoimmune disorders.
XX
PS   Example 4; Page 121; 157pp; English.
XX
CC   The invention relates to a composite binding polypeptide comprising a
CC   first natural binding domain derived from a first natural binding
CC   polypeptide and a second natural binding domain derived from a second
CC   natural binding polypeptide, where the first and second natural binding
CC   polypeptides may be the same or different and where the polypeptide binds
CC   to a target differing from the natural target of both the first and
CC   second binding polypeptides. The invention also relates to a chimeric
CC   polypeptide comprising a binding polypeptide cited above and a biological
CC   effector domain, a library of natural binding domains, a library of
CC   natural zinc finger nucleic acid binding domains comprising a linker
CC   attached to it, a method for selecting a binding polypeptide capable of
CC   binding to a target site and a method for designing a composite binding
CC   polypeptide. The methods and compositions of the present invention are
CC   useful for designing sequence-specific binding proteins for regulation of
CC   gene expression in the fields of molecular biology. They can also be used
CC   for the diagnosis and treatment of autoimmune disorders, and as research
CC   tools and in transgenic animals. This sequence represents human zinc
CC   finger binding motif DNA used in the scope of the invention
XX
SQ   Sequence 29 BP; 23 A; 4 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 29;
  Best Local Similarity   82.4%;  Pred. No. 5.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||||||||  || |
Db          1 AAAAAAAAAAACCAACA 17


RESULT 5488
ACD18467/c
ID   ACD18467 standard; DNA; 29 BP.
XX
AC   ACD18467;
XX
DT   25-AUG-2003  (first entry)
XX
DE   Human zinc finger binding motif DNA #16.
XX
KW   Composite binding polypeptide; zinc finger nucleic acid binding domain;
KW   autoimmune disorder; immunosuppressive; zinc finger binding motif; human;
KW   ss.
XX
OS   Homo sapiens.
XX
PN   WO200299084-A2.
XX
PD   12-DEC-2002.
XX
PF   04-APR-2002; 2002WO-US022272.
XX
PR   04-APR-2001; 2001GB-00008491.
XX
PA   (SANG-) SANGAMO BIOSCIENCES INC.
XX
PI   Moore M,  Sepp A,  Isalan M,  Choo Y;
XX
DR   WPI; 2003-278214/27.
XX
PT   New composite binding zinc finger polypeptide, useful for designing
PT   sequence-specific binding proteins regulating gene expression in the
PT   fields of molecular biology, and for the diagnosis and treatment of
PT   autoimmune disorders.
XX
PS   Example 4; Page 121; 157pp; English.
```

```
CC   cancer, oesophageal cancer, lung cancer, colorectal cancer, ovarian
CC   cancer, papillary bladder cancer, osteosarcoma, chondrosarcoma,
CC   liposarcoma, giant cell tumour, Ewing sarcoma, or other malignant tumours
XX
SQ   Sequence 22 BP; 3 A; 3 C; 8 G; 8 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        790 CTGTCAGAAGGAGCTGG 806
              ||||||| |  ||||||
Db          5 CTGTCAGTATTAGCTGG 21


RESULT 5484
AAC80383
ID   AAC80383 standard; DNA; 23 BP.
XX
AC   AAC80383;
XX
DT   03-MAY-2001  (first entry)
XX
DE   Forward primer #152 used for amplification of HLA-C exon 4.
XX
KW   HLA-A; HLA-B; HLA-C; typing; primer; human; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200061795-A2.
XX
PD   19-OCT-2000.
XX
PF   05-APR-2000; 2000WO-EP002998.
XX
PR   09-APR-1999;   99EP-00870068.
PR   11-JUN-1999;   99US-0138614P.
XX
PA   (INNO-) INNOGENETICS NV.
XX
PI   De Canck I,  Rombout A,  Rossau R;
XX
DR   WPI; 2000-647426/62.
XX
PT   Locus-specific, separate amplification of exon 2, exon 3, and/or exon 4
PT   of human leukocyte antigen (HLA)-A, HLA-B, or HLA-C alleles using defined
PT   primer sets, useful for subtyping or typing of HLA Class I alleles.
XX
PS   Claim 4; Page 47; 128pp; English.
XX
CC   The present invention relates to a method for the locus-specific,
CC   separate amplification of exon 2, exon 3, and/or exon 4 of human
CC   leukocyte antigen (HLA)-A, HLA-B, or HLA-C alleles. The method is useful
CC   for subtyping or typing of HLA class 1 alleles. The present sequence is
CC   an amplification primer used in the method
XX
SQ   Sequence 23 BP; 4 A; 5 C; 5 G; 6 T; 0 U; 3 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 23;
  Best Local Similarity   66.7%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    2;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        959 GTTCTCAGAAGAGCCAAATCG 979
              :|||||| | :| || || |
Db          1 RTTCTCAGGATRGTCACATGG 21


RESULT 5485
AAQ43999/c
ID   AAQ43999 standard; DNA; 24 BP.
XX
AC   AAQ43999;
XX
DT   25-MAR-2003  (revised)
DT   28-OCT-1993  (first entry)
XX
DE   HIV-1 LTR region antisense oligonucleotide Dx.
XX
KW   Purine; pyrimidine; tracts; therapeutic; diagnostic; control;
KW   gene expresssion; mRNA synthesis suppression;
KW   human immunodeficiency virus; ss.
XX
OS   Synthetic.
XX
PN   WO9312230-A1.
XX
PD   24-JUN-1993.
XX
PF   11-DEC-1992;   92WO-US010792.
XX
PR   13-DEC-1991;   91US-00808452.
PR   21-JAN-1992;   92US-00826934.
XX
PA   (STRI ) SRI INT.
XX
PI   Jayasena SD,  Johnston BH;
XX
DR   WPI; 1993-214172/26.
XX
PT   New oligo:nucleotide(s) forming triple helix with target nucleic acid -
PT   contain purine and pyrimidine tracts in specific orientations, useful
PT   therapeutically or diagnostically e.g. for inactivating HIV RNA, etc.
XX
PS   Disclosure; Fig 12b; 101pp; English.
XX
CC   The sequence is that of the antisense oligonucleotide Dx which is
CC   designed to target HIV-1 LTR region nucleotides 5786-8887. It may be
CC   useful for therapeutic or diagnostic control of gene expression, e.g.
CC   suppression of mRNA synthesis in the HIV-1 genome. When appropriately
CC   labelled it can also be used as a probe, and attachment of cleavage
CC   agents caused permanent inactivation of the target by site-specific
CC   cleavage. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 24 BP; 0 A; 8 C; 0 G; 16 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 24;
  Best Local Similarity   82.4%;  Pred. No. 6.1e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        974 AAATCGAAAAATGGAGG 990
              |||  |||||| |||||
Db         23 AAAAGGAAAAAAGGAGG 7


RESULT 5486
AAL61680
ID   AAL61680 standard; DNA; 25 BP.
XX
AC   AAL61680;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Oligonucleotide #37 used in the nucleic acid detection method.
XX
KW   Nucleic acid detection; fabrication; ss.
XX
OS   Unidentified.
XX
PN   WO2003035829-A2.
XX
PD   01-MAY-2003.
XX
PF   08-OCT-2002; 2002WO-US032088.
XX
PR   09-OCT-2001; 2001US-0327864P.
```

```
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 2 A; 3 C; 5 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4


RESULT 5482
AAQ42237
ID   AAQ42237 standard; cDNA; 22 BP.
XX
AC   AAQ42237;
XX
DT   25-MAR-2003  (revised)
DT   13-SEP-1993  (first entry)
XX
DE   PCR primer Gelo-19 used to mutagenise gelonin coding sequences.
XX
KW   Type I ribosome-inactivating protein; ricin; momordin; immunoconjugate;
KW   autoimmune disease; cell killing; toxin;
KW   Mutagenic polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9309130-A1.
XX
PD   13-MAY-1993.
XX
PF   04-NOV-1992;   92WO-US009487.
XX
PR   04-NOV-1991;   91US-00787567.
PR   19-JUN-1992;   92US-00901707.
XX
PA   (XOMA ) XOMA CORP.
XX
PI   Berhard SL,  Better MD,  Carroll SF,  Lane JA,  Lei SP;
XX
DR   WPI; 1993-167617/20.
XX
PT   Analogues of type I ribosome inactivating protein - useful as cytotoxic
PT   agents, immuno toxins for treating auto immune diseases, cancer, graft
PT   versus host disease and selective cell killing in=vivo.
XX
PS   Example 3; Page 33; 163pp; English.
XX
CC   Fifteen analogues of gelonin were constructed. Ten non-cysteine residues
CC   in surface positions and available for conjugation to a second protein
CC   were targeted for substn. In the other analogues, one or both of the
CC   native Cys residues present in gelonin were substd. Overlap extension PCR
CC   was used to construct the various analogues. Primer gelo-19 was one of
CC   the synthetic oligonucleotides used in the mutagenic reactions. (Updated
CC   on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 22 BP; 5 A; 7 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2452 AGACATGGGATCCAATT 2468
              || ||||| |||| |||
Db          2 AGCCATGGAATCCCATT 18


RESULT 5483
AAA12754
ID   AAA12754 standard; DNA; 22 BP.
XX
AC   AAA12754;
XX
DT   25-JUL-2000  (first entry)
XX
DE   5' PCR primer for exon 7 of DNA encoding human TREX protein.
XX
KW   Tumour necrosis factor receptor-associated Factor; TRAF;
KW   TRF-protein-interacting hereditary multiple extoses protein; TREX;
KW   signal modulator; tumour necrosis factor receptor;
KW   CD40 mediated signal transduction; TRAF protein; cancer;
KW   hereditary multiple extosis; autoimmune disease; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200018959-A1.
XX
PD   06-APR-2000.
XX
PF   17-SEP-1999;   99WO-US021654.
XX
PR   17-SEP-1998;   98US-00156191.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Sato T;
XX
DR   WPI; 2000-293180/25.
XX
PT   New nucleic acid encoding Tumor necrosis factor Receptor-Associated
PT   Factor (TRAF) protein-interacting hereditary multiple extoses (TREX)
PT   protein, useful in the diagnosing cancer.
XX
PS   Disclosure; Page 52; 161pp; English.
XX
CC   PCR primers AAA12754-55 were used to amplify exon 7 of DNA encoding human
CC   tumour necrosis factor receptor-associated Factor (TRAF) protein-
CC   interacting hereditary multiple extoses (TREX) protein. TREX is a signal
CC   modulator which bridges between the tumour necrosis factor (TNF) receptor
CC   and CD40 mediated signal transduction. Anti-TREX antibodies are useful
CC   for treating an abnormality in a patient by inhibiting binding of a TREX
CC   protein and a TRAF protein (that is, TRAF 2, TRAF 3 or TRAF 5). The
CC   abnormality is cancer, a hereditary multiple extosis or an autoimmune
CC   disease. The cancer is colon cancer, gastric cancer, human head and neck
CC   squamous cell carcinoma, prostate carcinoma, breast cancer, thyroid
```

```
AAX77101/c
ID   AAX77101 standard; DNA; 22 BP.
XX
AC   AAX77101;
XX
DT   03-AUG-1999  (first entry)
XX
DE   GC6 gene 3' primer E.
XX
KW   Cellular senescence; modulator; GC6 gene; senescent gene expression;
KW   pGC6; human; PCR primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9925878-A2.
XX
PD   27-MAY-1999.
XX
PF   19-NOV-1998;   98WO-US024996.
XX
PR   19-NOV-1997;   97US-00974180.
XX
PA   (GERO-) GERON CORP.
XX
PI   Funk W;
XX
DR   WPI; 1999-347496/29.
XX
PT   New human GC6 gene, useful for identifying agents for treating diseases
PT   and/or conditions associated with cell senescence.
XX
PS   Disclosure; Page 12; 79pp; English.
XX
CC   The invention relates to methods for modulating and identifying cellular
CC   senescence. Recombinant expression vectors comprising a recombinant
CC   polynucleotide corresponding to a polynucleotide in a human GC6 gene, are
CC   useful for altering senescent gene expression. The vectors and host cells
CC   comprising the vectors are useful for identifying agents that prevent or
CC   modulate senescent gene expression. The polynucleotides are useful for
CC   producing the protein, pGC6 and nucleic acid derivatives. The proteins
CC   encoded are useful for raising antibodies specific for pGC6, which are
CC   useful for isolating pGC6, and for detecting cells comprising pGC6 in
CC   complex cell mixtures. The characterization of the polynucleotides enable
CC   the identification of therapeutic agents that identify and distinguish
CC   between young and senescent cells. This enables treatment of aging
CC   diseases induced or exacerbated by cellular senescence
XX
SQ   Sequence 22 BP; 2 A; 3 C; 5 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4


RESULT 5480
AAZ47346/c
ID   AAZ47346 standard; DNA; 22 BP.
XX
AC   AAZ47346;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer E used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 2 A; 3 C; 5 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4


RESULT 5481
AAH22189/c
ID   AAH22189 standard; DNA; 22 BP.
XX
AC   AAH22189;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer E.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
```

Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4
```

RESULT 5477
AAT28048/c
ID AAT28048 standard; DNA; 22 BP.
XX
AC AAT28048;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer E for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,
PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 2 A; 3 C; 5 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 22;
Best Local Similarity 82.4%; Pred. No. 6.2e+03;

Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1979 AAAAAAAGAAAAGTGTG 1995
||||||| ||||| ||
Db 20 AAAAAAAAAAAAGCTTG 4

RESULT 5478
AAT58488/c
ID AAT58488 standard; DNA; 22 BP.
XX
AC AAT58488;
XX
DT 24-MAR-1997 (first entry)
XX
DE First primer #5 for use in enhanced differential display method.
XX
KW Differential Display; Enhanced Differential Display; EDD; screening;
KW gene expression; cell type; different; cell development; gene typing;
KW identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS Synthetic.
XX
PN US5580726-A.
XX
PD 03-DEC-1996.
XX
PF 29-APR-1994; 94US-00235180.
XX
PR 29-APR-1994; 94US-00235180.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Feng J, Villeponteau B, Funk W;
XX
DR WPI; 1997-033564/03.
XX
PT Detection of differentially expressed mRNA mols. - using two-step
PT polymerase chain reaction amplification method.
XX
PS Claim 9; Col 15; 15pp; English.
XX
CC An improved method of Differential Display, named Enhanced Differential
CC Display (EDD) has been designed as a technique for screening differences
CC in gene expression between various cell types or between different stages
CC of cell development. The technique is highly reproducible, leading to
CC precise typing of the expressed genes in any given cell. EDD analysis
CC permits the identification of novel genes involved in differentiation,
CC aging and disease, and enables direct comparisons of different cell types
CC and disease states. By using longer primers, and/or an alteration in the
CC annealing temperatures, the number of false positives can be reduced.
CC First, cDNA is prepared from total cellular RNA using 12 different 22-
CC base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC of pol II mRNA transcripts. The last two bases of each primer varies so
CC as to anchor the primer to the 3' end of different sets of mRNAs. A
CC second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC amplification of a subset of cDNAs is carried out in a two step process
CC using particular 5' and 3' primers. The amplified gene products can then
CC be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ Sequence 22 BP; 2 A; 3 C; 5 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 22;
Best Local Similarity 82.4%; Pred. No. 6.2e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4
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RESULT 5479

```
CC   permits the identification of novel genes involved in differentiation,
CC   aging and disease, and enables direct comparisons of different cell types
CC   and disease states. By using longer primers, and/or an alteration in the
CC   annealing temperatures, the number of false positives can be reduced.
CC   First, cDNA is prepared from total cellular RNA using 12 different 22-
CC   base oligonucleotides (AAT58484-95) that are targeted to the poly A tail
CC   of pol II mRNA transcripts. The last two bases of each primer varies so
CC   as to anchor the primer to the 3' end of different sets of mRNAs. A
CC   second set of 12 22-base oligo primers (AAT58472-83) is designed to
CC   randomly select a subset of cDNAs from each of the twelve 3' primers. PCR
CC   amplification of a subset of cDNAs is carried out in a two step process
CC   using particular 5' and 3' primers. The amplified gene products can then
CC   be directly sequenced or rapidly subcloned for DNA sequencing
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4


RESULT 5475
AAZ47350/c
ID   AAZ47350 standard; DNA; 22 BP.
XX
AC   AAZ47350;
XX
DT   06-MAR-2000  (first entry)
XX
DE   PCR primer I used in differential display analysis of Aspergillus oryzae.
XX
KW   Dopa decarboxylase; DDC2; DDC3; increased yield; hormone; receptor;
KW   antibody; reporter; enzyme; polypeptide production; primer; ss.
XX
OS   Synthetic.
OS   Aspergillus oryzae.
XX
PN   WO9960136-A1.
XX
PD   25-NOV-1999.
XX
PF   14-MAY-1999;   99WO-US010689.
XX
PR   15-MAY-1998;   98US-00079344.
PR   15-MAY-1998;   98US-00079601.
XX
PA   (NOVO ) NOVO NORDISK BIOTECH INC.
PA   (NOVO ) NOVO-NORDISK AS.
XX
PI   Wahleithner J,  Christensen T;
XX
DR   WPI; 2000-062459/05.
XX
PT   New isolated Aspergillus oryzae signaling sequences, used to increase the
PT   production of polypeptides by recombinant host filamentous fungal cells.
XX
PS   Example 2; Page 35; 78pp; English.
XX
CC   Sequences AAZ47342-Z47353 are oligo(dT12N2) primers used in the
CC   differential display analysis of the Aspergillus oryzae strains HC4.01
CC   and 27. The strains were analysed to find the genetic basis for phenotype
CC   differences in the strains which are used in a method for producing a
CC   polypeptide in an enhanced amount. The method involves cultivating a
CC   mutant of a parent filamentous fungal cell in suitable nutrient medium.
CC   The mutant cell contains the nucleotide sequence encoding the polypeptide
CC   to be synthesised and one or more second nucleotide sequences encoding a
CC   DDC polypeptide (see AAZ47338-Z47339). The mutant cell produces more of
CC   the polypeptide than the parent cell and the polypeptide can be recovered
CC   from the nutrient medium of the mutant cell. The method can be used for
CC   the production of polypeptides such as hormones, receptors, antibodies,
CC   reporters or enzymes, e.g. an aminopeptidase, amylase, carbohydrase,
CC   carboxypeptidase, catalase, cellulase, chitinase, cutinase, cyclodextrin
CC   glycosyltransferase, deoxyribonuclease, esterase, alpha-galactosidase,
CC   beta-galactosidase, glucoamylase, alpha-glucosidase, beta-glucosidase,
CC   invertase, laccase, lipase, mannosidase, mutanase, oxidase, pectinolytic
CC   enzyme, peroxidase, phytase, polyphenoloxidase, proteolytic enzyme,
CC   ribonuclease, transglutaminase or xylanase
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| |||||  ||
Db         20 AAAAAAAAAAAAGCTTG 4


RESULT 5476
AAH22193/c
ID   AAH22193 standard; DNA; 22 BP.
XX
AC   AAH22193;
XX
DT   20-AUG-2001  (first entry)
XX
DE   Human hepatocyte auxin related 3'-(T-rich) primer I.
XX
KW   Human; hepatocyte; auxin; liver; hepatitis; chronic hepatitis;
KW   liver fibrosis; cirrhosis; liver damage; primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1280985-A.
XX
PD   24-JAN-2001.
XX
PF   20-JUL-1999;   99CN-00110801.
XX
PR   20-JUL-1999;   99CN-00110801.
XX
PA   (HOSP-) HOSPITAL NO 458 CHINESE PLA.
XX
PI   Kong X,  Yi X,  Zeng P;
XX
DR   WPI; 2001-291394/31.
XX
PT   Novel recombinant human hepatocyte auxin, its preparation and clinical
PT   application.
XX
PS   Example 1; Page 2 (disclosure); 13pp; Chinese.
XX
CC   The present invention describes a differential indication PCR (polymerase
CC   chain reaction) technique which is used to obtain a new complete gene
CC   able to promote the repair of damaged liver cells and with substance
CC   total length of 0.7 kb by screening the cDNA library of human foetal
CC   liver. The induction expression of engineering bacteria, the separation
CC   and cracking of inclusion body and the process for restoring and
CC   decontaminating proteins are built up to obtain high purity recombinant
CC   human hepatocyte auxin. It can externally promote the reproduction of
CC   primary culture liver cells and liver cancer cells BEL-7402 and
CC   internally promote the synthesis of mouse liver cell DNA after CCL4 is
CC   damaged and the repair of liver cells. The method may be used to treat
CC   serious hepatitis, chronic hepatitis, liver fibrosis and cirrhosis. The
CC   present sequence represents a primer which is used in the exemplification
CC   of the present invention
XX
SQ   Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 22;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
```

CC cleavage structure in the presence of a target nucleic acid. The
CC oligonucleotides comprise: (a) a first oligonucleotide having a 5'
CC portion complementary to a first portion of a target nucleic acid and (b)
CC a second oligonucleotide comprising a 5' portion complementary to a
CC second portion of the target nucleic acid downstream of and contiguous to
CC the first portion and a 3' portion. The 3' portion of the second
CC oligonucleotide comprises a single 3' terminal nucleotide not
CC complementary to the target nucleic acid. Additionally, the kit has a
CC third oligonucleotide complementary to a third portion of the target
CC nucleic acid upstream of the first portion of the first target nucleic
CC acid. In detecting a target sequence, the oligonucleotides and
CC endonuclease are mixed under conditions where an invasive cleavage
CC structure is formed between the target sequence and the oligonucleotides
CC if the target sequence is present in the sample, where the invasive
CC cleavage structure is cleaved by the endonuclease to form a cleavage
CC product. The composition is useful in detecting and characterising
CC specific nucleic acid sequences and sequence variants which can be used
CC in detecting the presence of viral or bacterial infections, and other
CC diseases such as cancer. The composition may also be used in forensic
CC analysis or for paternity determinations. The sequence presented is a FEN
CC -1 related DNA used within the scope of the invention.
XX
SQ Sequence 21 BP; 11 A; 3 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 21;
Best Local Similarity 82.4%; Pred. No. 6.2e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2780 GAATTGAAAAAAAAAAA 2796
||||| ||||| ||| |
Db 1 GAATTCAAAAAGAAAGA 17

RESULT 5473
AAT28052/c
ID AAT28052 standard; DNA; 22 BP.
XX
AC AAT28052;
XX
DT 31-DEC-1996 (first entry)
XX
DE 3'-primer J for human fibroblasts.
XX
KW Polymerase chain reaction; PCR; primer; amplify; human; fibroblast; AIDS;
KW enhanced differential display; EDD; mRNA preparation; senescent cell;
KW quiescent cell; dividing cell; senescence-related gene; gene expression;
KW non-senescent cell; age-related lipofuscin; retina; therapy; liver spot;
KW donor tissue; senescent melanocyte; melanin; hypopigmentation; ss.
XX
OS Synthetic.
XX
PN WO9613610-A2.
XX
PD 09-MAY-1996.
XX
PF 24-AUG-1995; 95WO-US011230.
XX
PR 31-OCT-1994; 94US-00332420.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Hirsch KS, Villeponteau B, Feng J, Funk W, West MD;
XX
DR WPI; 1996-251464/25.
XX
PT Identifying, isolating and regulating senescence-related genes - useful
PT to ameliorate problems associated with accumulation of senescent cells,
PT e.g. age-related lipofuscin accumulation in the retina and AIDS.
XX
PS Claim 6; Page 25; 135pp; English.
XX
CC AAT28044-T28075 represent primers for human fibroblasts in enhanced
CC differential display (EDD), which is used in conjuncture with the method
CC of the invention. EDD is an mRNA preparation method. AAT28044-T28055
CC represent T-rich 3'-primers, while AAT28056-T28075 are randomly selected
CC 5'-primers used in EDD of human fibroblasts. The 3'-primers used are
CC complementary to the poly-A tail of the mRNA. In the method of the
CC invention, mRNA is isolated from a senescent cell, and a young quiescent
CC cell, and the mRNAs are amplified in separate reaction mixtures. The
CC amplified sequences are then separated by size or charge, and the
CC products are analysed to identify a gene from young quiescent cells and
CC dividing cells, that is present at a different level from senescent
CC cells. The method can be used for the rapid and efficient identification
CC and isolation of senescence-related genes and gene products, and to
CC detect and distinguish between senescent and non-senescent cells. It can
CC also be used to destroy cells expressing senescence specific (or related)
CC gene products, and to screen for compounds capable of altering gene
CC expression in senescent cells. The method can also be used to ameliorate
CC problems associated with the accumulation of senescent cells such as age-
CC related lipofuscin accumulation in the retina, and in the treatment of
CC AIDS. Also, the method can be used to distinguish young cells from
CC senescent cells in donor tissue, which is useful in removing senescent
CC melanocytes overexpressing melanin which cause hypopigmentation, or liver
CC spots
XX
SQ Sequence 22 BP; 3 A; 3 C; 4 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 22;
Best Local Similarity 82.4%; Pred. No. 6.2e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1979 AAAAAAAGAAAAGTGTG 1995
||||||| ||||| ||
Db 20 AAAAAAAAAAAAGCTTG 4

RESULT 5474
AAT58492/c
ID AAT58492 standard; DNA; 22 BP.
XX
AC AAT58492;
XX
DT 24-MAR-1997 (first entry)
XX
DE First primer #9 for use in enhanced differential display method.
XX
KW Differential Display; Enhanced Differential Display; EDD; screening;
KW gene expression; cell type; different; cell development; gene typing;
KW identification; differentiation; aging; and disease; primer; PCR; ss.
XX
OS Synthetic.
XX
PN US5580726-A.
XX
PD 03-DEC-1996.
XX
PF 29-APR-1994; 94US-00235180.
XX
PR 29-APR-1994; 94US-00235180.
XX
PA (GERO-) GERON CORP.
XX
PI Linskens MHK, Feng J, Villeponteau B, Funk W;
XX
DR WPI; 1997-033564/03.
XX
PT Detection of differentially expressed mRNA mols. - using two-step
PT polymerase chain reaction amplification method.
XX
PS Claim 9; Col 15; 15pp; English.
XX
CC An improved method of Differential Display, named Enhanced Differential
CC Display (EDD) has been designed as a technique for screening differences
CC in gene expression between various cell types or between different stages
CC of cell development. The technique is highly reproducible, leading to
CC precise typing of the expressed genes in any given cell. EDD analysis

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XX
SQ   Sequence 21 BP; 2 A; 5 C; 0 G; 14 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 21;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2157 TTTTTCTCCTTTTTTTT 2173
              | ||||| ||||| |||
Db          1 TCTTTCTTCTTTTCTTT 17


RESULT 5471
AAZ26192/c
ID   AAZ26192 standard; DNA; 21 BP.
XX
AC   AAZ26192;
XX
DT   30-NOV-1999  (first entry)
XX
DE   Human polymorphic region 381.
XX
KW   Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH;
KW   cell viability; loss of heterozygosity; precancerous condition; ASI;
KW   allele specific inhibitor; somatic cell; diagnosis; prevention;
KW   atherosclerotic plaque; premalignant metaplastic lesion; endometriosis;
KW   dysplastic lesion; benign tumour; polycystic kidney disease; transplant;
KW   graft versus host disease; malignant cell removal; bone marrow; ss.
XX
OS   Homo sapiens.
XX
PN   WO9841648-A2.
XX
PD   24-SEP-1998.
XX
PF   19-MAR-1998;   98WO-US005419.
XX
PR   20-MAR-1997;   97US-0041057P.
XX
PA   (VARI-) VARIAGENICS INC.
XX
PI   Housman D,  Ledley FD,  Stanton VP;
XX
DR   WPI; 1998-521232/44.
XX
PT   Identifying target genes for allele-specific drugs - used for diagnosis,
PT   prevention and treatment of, e.g. cancers, atherosclerotic plaque,
PT   dysplastic lesions, endometriosis or graft versus host disease.
XX
PS   Disclosure; Fig 7; 605pp; English.
XX
CC   This invention describes a novel method for identifying an inhibitor
CC   potentially useful for treatment of cancer, where the inhibitor is active
CC   on a gene vital for cell growth or viability, and where the gene is
CC   subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is
CC   used for preventing the development of cancer in a patient having a
CC   precancerous condition, by administering to the patient a first allele
CC   specific inhibitor (ASI) targeted to an allele of a first essential gene
CC   present in cells of the precancerous condition, where the normal somatic
CC   cells of the patient are heterozygous for the first gene, the inhibitor
CC   is active on at least one but less than all allelic forms of the gene
CC   present in a population and targets only one allelic form present in the
CC   normal somatic cells, and the first gene. The products and methods can be
CC   used in the diagnosis, prevention and treatment of LOH disorders, e.g.
CC   cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic
CC   lesions, benign tumours, endometriosis, polycystic kidney disease, and
CC   graft versus host disease. The method can also be used to remove
CC   malignant cells from bone marrow transplants. AAZ25812-Z26825 represent
CC   human polymorphic sites described in the method of the invention
XX
SQ   Sequence 21 BP; 2 A; 7 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 21;
  Best Local Similarity   82.4%;  Pred. No. 6.2e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        713 CAGCACCTGTTGCTGCA 729
              ||||||| | ||||| |
Db         20 CAGCACCAGCTGCTGGA 4


RESULT 5472
ADE53231
ID   ADE53231 standard; DNA; 21 BP.
XX
AC   ADE53231;
XX
DT   29-JAN-2004  (first entry)
XX
DE   FEN-1 related DNA used within the scope of the invention, #367.
XX
KW   Flap endonuclease-1; FEN-1; endonuclease; structure-specific nuclease;
KW   invasive cleavage structure; thermostable; DNA polymerase; 5' nuclease;
KW   viral infection; bacterial infection; cancer; forensic analysis;
KW   paternity determination; ds.
XX
OS   Methanocaldococcus jannaschii.
XX
PN   WO200270755-A2.
XX
PD   12-SEP-2002.
XX
PF   15-NOV-2001; 2001WO-US044953.
XX
PR   15-NOV-2000; 2000US-00713601.
PR   17-NOV-2000; 2000US-00714935.
XX
PA   (THIR-) THIRD WAVE TECHNOLOGIES INC.
XX
PI   Lyamichev VI,  Kaiser MW,  Lyamicheva N;
XX
DR   WPI; 2002-750464/81.
XX
PT   New composition useful for detecting and characterizing nucleic acid
PT   sequences and sequence variants for detecting the presence of viral or
PT   bacterial infections or cancer, comprises purified or chimerical FEN-1
PT   endonuclease.
XX
PS   Example 65; SEQ ID NO 413; 871pp; English.
XX
CC   The invention discloses a new composition (I) which comprises a purified
CC   flap endonuclease-1 (FEN-1) from e.g. Sulfolobus solfataricus,
CC   Pyrobaculom aerophilum or a chimerical FEN-1 endonuclease having a
CC   portion of the above endonuclease in addition to that of Pyrococcus
CC   horikoshii and Aeropyrum pernix. Also claimed is a composition comprising
CC   an isolated nucleic acid sequence encoding the endonuclease mentioned
CC   above, a composition comprising a vector having the nucleic acid sequence
CC   cited above, a composition comprising a host cell and vector cited above,
CC   a mixture comprising a first structure-specific nuclease selected from
CC   the species mentioned in composition (I), and a purified second structure
CC   -specific nuclease and detecting a target sequence, comprising: (a)
CC   providing a sample suspected of containing the target sequence,
CC   oligonucleotides capable of forming an invasive cleavage structure in the
CC   presence of the target sequence, and a FEN-1 endonuclease selected from
CC   the species cited above and (b) exposing the sample to the
CC   oligonucleotides and FEN-1 endonuclease. The second structure-specific
CC   nuclease also comprises a thermostable DNA polymerase. It has a 5'
CC   nuclease derived from a DNA polymerase altered in amino acid sequence
CC   such that it exhibits reduced DNA synthetic activity from that of the
CC   wild-type DNA polymerase but retains substantially the same 5' nuclease
CC   activity of the wild-type DNA polymerase. The second structure is
CC   selected from CLEAVASE BN enzyme, CLEAVASE DA enzyme, CLEAVASE DN enzyme,
CC   CLEAVASE DV enzyme, CLEAVASE BN/thrombin enzyme, CLEAVASE TThDN enzyme,
CC   T. aquaticus DNA polymerase, T. thermophilus DNA polymerase, E. coli Exo
CC   III and S. cerevisiae Rad1/Rad10 complex. The nucleic acid treatment kit
CC   comprises (I) and oligonucleotides capable of forming an invasive
```

CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 2 A; 2 C; 2 G; 14 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1765 TTAAGCTTTTTTTTTTT 1781
||| | | |||||||||
Db 1 TTAGGTTCTTTTTTTTT 17

RESULT 5469
AAZ99642/c
ID AAZ99642 standard; DNA; 21 BP.
XX
AC AAZ99642;
XX
DT 12-JUL-2000 (first entry)
XX
DE Nucleotide sequence of G-motif oligonucleotide PZ332.
XX
KW G-motif oligonucleotide; vaccine; Toxoplasmosis; viral infection;
KW antigen presenting cell activation; natural killer cell; septic shock;
KW cytotoxic T-lymphocyte; inflammation; autoimmune disease;
KW rheumatoid arthritis; Crohn's disease; sarcoidosis; multiple sclerosis;
KW Kawasaki syndrome; graft-versus-host disease; transplant rejection;
KW helper T cell response 1-mediated disease; Lyme arthritis;
KW Streptococcal induced arthritis; chronic inflammatory bowel disease;
KW psoriasis vulgaris; experimental allergic encephalomyelitis;
KW insulin-dependent diabetes mellitus; bacterial infection;
KW parasitic infection; Leishmaniasis; spontaneous abortion; tumour; ss.
XX
OS Synthetic.
XX
PN WO200014217-A2.
XX
PD 16-MAR-2000.
XX
PF 03-SEP-1999; 99WO-EP006502.
XX
PR 03-SEP-1998; 98EP-00116652.
XX
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS GMBH.
XX
PI Wagner H, Lipford GB, Heeg K;
XX
DR WPI; 2000-256970/22.
XX
PT Compositions comprising G-motif oligonucleotides useful for treating e.g.
PT septic shock, rheumatoid arthritis, diabetes and human immunodeficiency
PT virus infections.
XX
PS Disclosure; Page 34; 75pp; English.
XX
CC The present sequence represents a G-motif oligonucleotide of the
CC invention. The specification describes compositions comprising G-motif
CC oligonucleotides. The G-motif oligonucleotides inhibit activation of
CC antigen presenting cells by inhibiting the uptake of DNA by a cell, by
CC stimulating natural killer cells, or by co-stimulating cytotoxic T-
CC lymphocytes. The G-motif oligonucleotides may be used for the productions
CC of vaccines for treating septic shock, inflammation, autoimmune diseases
CC (e.g. rheumatoid arthritis, Crohn's disease, sarcoidosis, multiple
CC sclerosis, Kawasaki syndrome, graft-versus-host disease and transplant
CC rejection), helper T cell response 1-mediated diseases (e.g.
CC Streptococcal induced arthritis, Lyme arthritis, chronic inflammatory
CC bowel disease, psoriasis vulgaris, experimental allergic
CC encephalomyelitis, and insulin-dependent diabetes mellitus), bacterial
CC infections, parasitic infections (e.g. Leishmaniasis or Toxoplasmosis),
CC viral infections (e.g. Cytomegalovirus and human immunodeficiency virus
CC (HIV)-infections), spontaneous abortions and tumours. They may also be
CC used to induce proliferation of bone marrow cells, especially macrophage
CC precursor cells
XX
SQ Sequence 21 BP; 2 A; 5 C; 0 G; 14 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 21;
Best Local Similarity 82.4%; Pred. No. 6.2e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2782 ATTGAAAAAAAAAAAAA 2798
|| | |||||||||| |
Db 21 ATAGGAAAAAAAAAATA 5

RESULT 5470
AAF30891
ID AAF30891 standard; DNA; 21 BP.
XX
AC AAF30891;
XX
DT 09-JUL-2001 (first entry)
XX
DE Mismatched target of ODN-MGB-LF conjugate.
XX
KW ODN-MGB-LF; oligonucleotide; minor groove binder; latent fluorophore;
KW hybridisation; detection; fluorescence; PCR primer; ss.
XX
OS Synthetic.
XX
PN WO200131063-A1.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US029786.
XX
PR 26-OCT-1999; 99US-00428236.
XX
PA (EPOC-) EPOCH BIOSCIENCES INC.
XX
PI Dempcy RO, Afonina IA, Vermeulen NMJ;
XX
DR WPI; 2001-328656/34.
XX
PT Conjugate of oligonucleotide, minor groove binder and latent fluorophore,
PT useful for detecting specific nucleic acids, e.g. for single-nucleotide
PT mismatch discrimination.
XX
PS Example 9; Page 78; 105pp; English.
XX
CC The present sequence is that of a mismatched target sequence for an
CC oligonucleotide (ODN)-minor groove binder (MGB)-latent fluorophore (LF)
CC conjugate of the invention. It contains a single nucleotide mismatch to
CC the ODN moiety of the conjugate, and was used to demonstrate the use of
CC ODN-MGB-LF conjugates as primers in real-time PCR. The template was the
CC 4518 bp pBK-CMV phagemid. The template contained a LacZ gene insert in
CC which the region between nucleotides 1060 and 1083 was substituted with
CC either the present mismatched target sequence, or with the matched target
CC sequence given in AAF30890. Primers (see AAF30892-94) were chosen to
CC produce a 42 bp amplicon. A strong fluorescence output was observed for
CC the template with the perfectly-matched sequence, but only background
CC fluorescence was observed for the template with the single-base mismatch

CC in vivo transformation and expression. They can thus be used for the
CC delivery and expression of a therapeutic, immunological or immunogenic
CC molecule (e.g., an antigen) and may also be used for eliciting an
CC immunological response in a host organism. They are therefore useful in
CC genetic vaccine compositions and for gene therapy, particularly where the
CC use of retroviral vectors is unsafe or undesirable. Additionally, the
CC retrotransposons may be used to generate transgenic animals, to detect
CC the presence of Candida in a sample, to detect and disrupt genes, and to
CC assign functions to nucleotide sequences. Sequences AAA57968-A57981
CC represent motifs within the C. albicans genome into which a TCa2
CC retrotransposon was able to insert
XX
SQ Sequence 20 BP; 15 A; 0 C; 3 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2155 TTTTTTTCTCCTTTTTT 2171
||||||||| || | ||
Db 17 TTTTTTTCTTCTCTATT 1

RESULT 5467
AAH56423
ID AAH56423 standard; DNA; 20 BP.
XX
AC AAH56423;
XX
DT 06-SEP-2001 (first entry)
XX
DE Escherichia coli groE operon antisense oligonucleotide SEQ ID NO:71.
XX
KW Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW antibacterial; antiviral; antiproliferative; antisense therapy;
KW microbial infection; ss.
XX
OS Escherichia coli.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA001347.
XX
PR 18-NOV-1999; 99US-0166249P.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT gene of microorganism, which hybridize with and inhibit expression of the
PT genes, useful to inhibit growth of microorganism having the genes.
XX
PS Claim 3; Page 41; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or GS
CC of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC antiproliferative activities, and can be used in antisense therapy and
CC for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL or
CC GS gene and administering (I) such that the growth of microorganism is
CC inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention
XX
SQ Sequence 20 BP; 3 A; 4 C; 0 G; 13 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2156 TTTTTTCTCCTTTTTTT 2172
||||||||| || |||
Db 1 TTTTTTCTCTTTCATTT 17

RESULT 5468
ABZ90288
ID ABZ90288 standard; DNA; 20 BP.
XX
AC ABZ90288;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5530; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an

CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention
XX
SQ Sequence 20 BP; 3 A; 2 C; 1 G; 14 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2779 AGAATTGAAAAAAAAAA 2795
| | ||||||| |||||
Db 17 AAAGTTGAAAATAAAAA 1

RESULT 5465
ABZ89895/c
ID ABZ89895 standard; DNA; 20 BP.
XX
AC ABZ89895;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5137; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 12 A; 1 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2172 TTTTTTTTTTTTTTAA 2188
|||||||||||| | ||
Db 20 TTTTTTTTTTCCTCAA 4

RESULT 5466
AAA57980/c
ID AAA57980 standard; DNA; 20 BP.
XX
AC AAA57980;
XX
DT 10-OCT-2000 (first entry)
XX
DE Candida albicans TCa2 retrotransposon insertion site, contig4-3072.
XX
KW Retrotransposon; pCal; TCa2; Ty1; copia; long terminal repeat; LTR;
KW gag gene; group antigen; polyprotein; pol; asparate protease; integrase;
KW reverse transcriptase; RNaseH; pseudoknot; readthrough translation;
KW stop codon suppression; gene delivery; gene therapy vector;
KW genetic vaccine composition; immunogenic; transgenic animal;
KW genomic insertion site; ds.
XX
OS Candida albicans.
XX
PN WO200026397-A1.
XX
PD 11-MAY-2000.
XX
PF 01-NOV-1999; 99WO-NZ000179.
XX
PR 30-OCT-1998; 98CA-02249046.
PR 30-OCT-1998; 98US-0106342P.
XX
PA (JANC) JANSSEN PHARM NV.
XX
PI Luyten WHML, De Backer MD, Nelissen BJM, Poulter RTM;
XX
DR WPI; 2000-365640/31.
XX
PT Novel retrotransposon expression vectors useful for expressing an
PT antigen, epitope or therapeutic agent, or detecting genes or the presence
PT of Candida in a sample.
XX
PS Example 19; Fig 69; 204pp; English.
XX
CC The invention relates to novel retrotransposons from the yeast Candida
CC albicans which have a copy number of 40-150, preferably 50-100 copies per
CC genome. In particular, the invention relates to the novel C. albicans
CC Ty1/copia retrotransposon pCal (AAA57920), and to the integrated form of
CC this retrotransposon, designated TCa2, and to the novel C. albicans
CC retrotransposons 1-28. pCal was initially isolated from C. albicans
CC hOG1042 and has a copy number of 50-100 copies per cell. It comprises
CC identical 280 bp long terminal repeats (LTRs) and two open reading frames
CC (ORFs). The first ORF encodes a gag (group antigen) protein, and the
CC second ORF encodes a polyprotein (pol) consisting of an aspartate
CC protease, integrase, reverse transcriptase (RT) and RNaseH. The gag and
CC pol ORFs of pCal are in the same reading frame, separated only by a
CC termination codon (TGA). Translation of the pol ORF occurs through the
CC occasional readthrough suppression of the stop codon, which is mediated
CC by the formation of a pseudoknot within the gag-pol mRNA. The
CC retrotransposons of the invention can be used as vectors for in vitro or

```
CC   agents and diagnostic methods, as well as the characterisation of the
CC   differential efficacious responses to and side effects from
CC   pharmaceutical agents acting on a disease as well as other treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and
CC   3367, are not actually given a sequence in the Sequence Listing from the
CC   present invention
XX
SQ   Sequence 20 BP; 1 A; 8 C; 0 G; 11 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 20;
  Best Local Similarity   82.4%;  Pred. No. 6.1e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1626 TACCTACCTTACTATTT 1642
              | ||| |||| ||||||
Db          2 TTCCTTCCTTCCTATTT 18


RESULT 5463
ABQ84614
ID   ABQ84614 standard; DNA; 20 BP.
XX
AC   ABQ84614;
XX
DT   20-FEB-2003  (first entry)
XX
DE   DPP10 related PSQ assay oligonucleotide #99.
XX
KW   DPP10; dipeptidyl peptidase; prolyloligopeptidase; enzyme; asthma;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antiarthritic;
KW   antirheumatic; vaccine; gene therapy; inflammatory disease;
KW   inflammatory bowel disease; atopy; rheumatoid arthritis; psoriasis;
KW   chromosome 2q14; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200286113-A2.
XX
PD   31-OCT-2002.
XX
PF   24-APR-2002; 2002WO-GB001887.
XX
PR   24-APR-2001; 2001GB-00010044.
PR   24-APR-2001; 2001GB-00010046.
PR   12-OCT-2001; 2001GB-00024575.
PR   12-OCT-2001; 2001GB-00024594.
XX
PA   (ISIS-) ISIS INNOVATIONS LTD.
XX
PI   Cookson WOCM,  Moffat MF,  Allen M,  Lench N;
XX
DR   WPI; 2003-093132/08.
XX
PT   New nucleic acid sequence comprising DPP10 mRNA, useful for the
PT   manufacture of a medicament for regulating DPP10 protein expression or
PT   for preventing or treating inflammatory disease e.g., inflammatory bowel
PT   disease.
XX
PS   Disclosure; Page 321; 321pp; English.
XX
CC   The present invention describes a new isolated nucleic acid sequence (I)
CC   comprising a DPP10 mRNA sequence. DPP10 is a dipeptidyl peptidase (also
CC   known as prolyloligopeptidase). (I) has antiinflammatory, antiasthmatic,
CC   antipsoriatic, antiarthritic and antirheumatic activities, and can be
CC   used in vaccines and gene therapy. A composition comprising (I) can be
CC   used for the manufacture of a medicament for regulating DPP10 expression
CC   or for preventing or treating inflammatory disease e.g., inflammatory
CC   bowel disease, asthma, atopy, rheumatoid arthritis or psoriasis. (I) can
CC   also be used in an assay for detecting or measuring DPP10 in a sample. A
CC   host cell comprising (I) can be used for producing recombinant DPP10 gene
CC   products, or in drug screening systems to identify agents for diagnosis
CC   or treatment of individuals having or susceptible to inflammatory
CC   disease. Human DPP10 is located on chromosome 2, more specifically
CC   chromosome 2q14. ABQ84254 to ABQ84612 and ABP55569 to ABP55629 represent
CC   sequences used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 11 A; 1 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 20;
  Best Local Similarity   82.4%;  Pred. No. 6.1e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1980 AAAAAAGAAAAGTGTGT 1996
              |||| ||||||||  ||
Db          1 AAAATAGAAAAGTAGGT 17


RESULT 5464
AAH56777/c
ID   AAH56777 standard; DNA; 20 BP.
XX
AC   AAH56777;
XX
DT   06-SEP-2001  (first entry)
XX
DE   S. aureus groE operon antisense oligonucleotide SEQ ID NO:425.
XX
KW   Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW   microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW   Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW   antibacterial; antiviral; antiproliferative; antisense therapy;
KW   microbial infection; ss.
XX
OS   Staphylococcus aureus.
XX
PN   WO200136625-A2.
XX
PD   25-MAY-2001.
XX
PF   20-NOV-2000; 2000WO-CA001347.
XX
PR   18-NOV-1999;   99US-0166249P.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA,  Young AH,  Dugourd D;
XX
DR   WPI; 2001-355633/37.
XX
PT   Novel antisense compounds targeting nucleic acid encoding groEL or groES
PT   gene of microorganism, which hybridize with and inhibit expression of the
PT   genes, useful to inhibit growth of microorganism having the genes.
XX
PS   Claim 3; Page 53; 110pp; English.
XX
CC   The present invention specifically claims AAH56368 to AAH56832 which are
CC   antisense oligonucleotides to nucleotide sequences encoding groE. More
CC   generally, antisense compounds (I) comprising antisense oligonucleotides
CC   of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC   shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC   microorganism, where the antisense compound is complementary to GL or GS
CC   of a microorganism and specifically hybridises with and inhibits the
CC   expression of GL or GS, is claimed. (I) have antibacterial, antiviral and
CC   antiproliferative activities, and can be used in antisense therapy and
CC   for inhibition of expression of groES or groEL. (I) are useful for
CC   inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC   also useful for inhibiting the growth of a microorganism, or inhibiting
CC   the expression of GL or GS gene in a microorganism (a bacterial cell or a
CC   virus) having a GL or GS gene which involves administering to the
CC   microorganism or to a cell infected with the microorganism, (I). (I) are
CC   also useful for treating a mammalian pathological condition mediated by
CC   the microorganisms which involves identifying a eukaryotic organism
CC   having a pathological condition mediated by microorganisms having a GL or
CC   GS gene and administering (I) such that the growth of microorganism is
CC   inhibited. The antisense compounds are utilised for diagnostics,
CC   therapeutics, prophylaxis and as research reagents and kits, e.g., to
```

PT mutation(s) in alpha-mannosidase gene, also nucleic acid encoding the
PT enzyme and derived oligo:nucleotide primers.
XX
PS Example 2; Page 22; 85pp; English.
XX
CC Forward primer mp5UT1F is based on a 1500 bp amplicon produced from
CC bovine fibroblast genomic DNA using primers (see AAT91098-99) based on
CC the bovine alpha-mannosidase (LAMAN) gene (see AAT91086). It was used
CC with reverse primer mp262 (see AAT91101) to obtain an 800 bp RT-PCR
CC product that constituted a 5' part of LAMAN cDNA. This was combined with
CC a previously obtained PCR cDNA fragment (see AAT91096-97) to produce a
CC full-length clone (see AAT91086) for LAMAN (see AAW26682). Mutations in
CC the LAMAN gene cause bovine alpha-mannosidosis, and can be detected using
CC claimed PCR primers (see AAT91088-93)
XX
SQ Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 82.4%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 434 CTGCACCAGCCGGCGCC 450
||||| | |||| ||||
Db 19 CTGCAGCCGCCGCCGCC 3

RESULT 5461
ABZ90451/c
ID ABZ90451 standard; DNA; 20 BP.
XX
AC ABZ90451;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human oligonucleotide sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
XX
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 5693; 872pp; English.
XX
CC The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 20 BP; 3 A; 12 C; 4 G; 0 T; 0 U; 1 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 20;
Best Local Similarity 77.8%; Pred. No. 6.1e+03;
Matches 14; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 634 GGATGCCGCGGGCCTGGC 651
|| || | |||| |||||
Db 18 GGNTGGCTCGGGGCTGGC 1

RESULT 5462
AAZ70845
ID AAZ70845 standard; DNA; 20 BP.
XX
AC AAZ70845;
XX
DT 10-SEP-2001 (first entry)
XX
DE Human biallelic marker upstream amplification primer SEQ ID NO:5201.
XX
KW Human genome; biallelic marker; high density disequilibrium map;
KW genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW haplotyping; hybridisation; identification; characterisation;
KW amplification; single nucleotide polymorphism; SNP; PCR primer;
KW diagnosis; ss.
XX
OS Homo sapiens.
XX
PN WO9954500-A2.
XX
PD 28-OCT-1999.
XX
PF 21-APR-1999; 99WO-IB000822.
XX
PR 21-APR-1998; 98US-0082614P.
PR 23-NOV-1998; 98US-0109732P.
XX
PA (GEST) GENSET.
XX
PI Cohen D, Blumenfeld M, Chumakov I;
XX
DR WPI; 2000-013267/01.
XX
PT Novel biallelic markers used to construct a high density disequilibrium
PT map of the human genome.
XX
PS Claim 8; Page 1340; 2745pp; English.
XX
CC AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC invention, which contain a polymorphic base at position 24 of their
CC nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC primers for the biallelic markers. The biallelic markers of the invention
CC have a variety of uses: they can be used for high density mapping of the
CC human genome, and in complex association studies and haplotyping studies
CC which are useful in determining the genetic basis for disease states.
CC Compositions and methods of the invention can also be useful for the
CC identification of the targets for the development of pharmaceutical

```
XX
PS   Example 1; Page 239; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative skin
CC   diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
CC   exemplification of the present invention
XX
SQ   Sequence 19 BP; 1 A; 7 C; 7 G; 4 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 19;
  Best Local Similarity   82.4%;  Pred. No. 5.9e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        500 GCGGGGCTGCCCTCGCA 516
              ||| ||||  |||||||
Db          2 GCGTGGCTCTCCTCGCA 18


RESULT 5459
AAL62285
ID   AAL62285 standard; DNA; 20 BP.
XX
AC   AAL62285;
XX
DT   06-OCT-2003  (first entry)
XX
DE   Human transcription factor-2 gamma antisense oligo, ISIS 128139.
XX
KW   Transcription factor-2 gamma; TFAP2C; AP-2 gamma; AP2-gamma; AP-2.2;
KW   Stra2; activating enhancer-binding protein 2 gamma; antisense therapy;
KW   oestrogen receptor factor-1; ERF-1; hyperproliferative disorder; cancer;
KW   breast; colon; developmental disorder; human; phosphorothioate backbone;
KW   antisense; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "Phosphorothioate backbone; All cytidines are 5-
FT                    methylcytidines"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'methoxyethyl nucleotides"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "2'methoxyethyl nucleotides"
XX
PN   WO2003051308-A2.
XX
PD   26-JUN-2003.
XX
PF   12-DEC-2002; 2002WO-US040100.
XX
PR   17-DEC-2001; 2001US-00023782.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Cowsert LM,  Freier SM;
XX
DR   WPI; 2003-569107/53.
XX
PT   New antisense compound targeted to a nucleic acid molecule encoding
PT   transcription factor-2 gamma, useful for inhibiting expression of the
PT   nucleic acid, and for treating cancer e.g. breast cancer or colon cancer.
XX
PS   Claim 3; Page 79; 107pp; English.
XX
CC   The invention relates to antisense compounds, compositions and methods
CC   for modulating the expression of transcription factor-2 gamma (TFAP2C).
CC   TFAP2C is also known as AP-2 gamma, AP2-gamma, AP-2.2, Stra2, activating
CC   enhancer-binding protein 2 gamma, oestrogen receptor factor-1 and ERF-1.
CC   The invention is useful for inhibiting the expression of TFAP2C in cells
CC   or tissues. It is useful for treating an animal having a disease or
CC   condition associated with TFAP2C, e.g., a hyperproliferative disorder
CC   such as cancer e.g. breast cancer or colon cancer and a developmental
CC   disorder. The invention is also useful for diagnostics, therapeutics,
CC   prophylaxis and as research reagents and kits. It is also used in
CC   antisense therapy. The present sequence is an antisense oligonucleotide
CC   targetted to human TFAP2C DNA. This sequence is used to illustrate the
CC   method of the invention
XX
SQ   Sequence 20 BP; 1 A; 8 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 20;
  Best Local Similarity   82.4%;  Pred. No. 6.1e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         59 GGCGGCGGCAGACGCCT 75
              |||||||||  |||| |
Db          1 GGCGGCGGCGTACGCTT 17


RESULT 5460
AAT91100/c
ID   AAT91100 standard; DNA; 20 BP.
XX
AC   AAT91100;
XX
DT   27-MAR-1998  (first entry)
XX
DE   Bovine lysosomal alpha-mannosidase (LAMAN) gene PCR primer mp5UT1F.
XX
KW   LAMAN; lysosomal alpha-mannosidase; alpha-mannosidosis; cattle;
KW   diagnosis; screening; genetic test; PCR; primer; RFLP;
KW   restriction fragment length polymorphism; ss.
XX
OS   Synthetic.
OS   Bos taurus.
XX
PN   WO9726369-A1.
XX
PD   24-JUL-1997.
XX
PF   15-JAN-1997;   97WO-GB000109.
XX
PR   15-JAN-1996;   96NO-00000163.
XX
PA   (HEAL/) HEALY P.
PA   (DZIE/) DZIEGLEWSKA H.
XX
PI   Berg T,  Tollersrud OK,  Nilssen O;
XX
DR   WPI; 1997-385352/35.
XX
PT   Diagnosis and screening for bovine alpha-mannosidosis - by detecting
```

KW Uncoupling protein-2; UCP2 gene; human; respiration; thermogenesis;
KW obesity; hyperinsulinaemia; glucose intolerance; diabetes; syndrome X;
KW hypothermia; wasting; cachexia; anorexia; inflammation; fever;
KW hyperthermia; gene therapy; diagnosis; PCR; primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9831396-A1.
XX
PD 23-JUL-1998.
XX
PF 22-APR-1997; 97WO-US006864.
XX
PR 15-JAN-1997; 97US-0034960P.
XX
PA (UYDU-) UNIV DUKE.
PA (REGC) UNIV CALIFORNIA.
PA (CNRS) CENT NAT RECH SCI.
XX
PI Surwit RS, Collins SA, Warden CH, Seldin MF, Ricquier D;
PI Bouillaud F;
XX
DR WPI; 1998-413823/35.
XX
PT Method for treating disease associated with altered UCP-2 expression - by
PT administering agent which enhances or inhibits UCP-2 activity,
PT effectively to treat obesity, diabetes, fever, hyperthermia, cachexia
PT etc.
XX
PS Disclosure; Fig 1F; 98pp; English.
XX
CC Primer hUCP2.CDSR1 is used with forward primer hUCP2.CDSF1 (see AAV44619)
CC in the PCR amplification of a 1098 bp region of the human uncoupling
CC protein-2 (UCP2) gene coding sequence (see also AAV44595). The invention
CC relates to a method for treating diseases associated with altered UCP2
CC expression, such as obesity, diabetes, syndrome X, hypothermia,
CC hyperinsulinaemia, glucose intolerance, wasting, anorexia, inflammation,
CC cachexia, fever or hyperthermia
XX
SQ Sequence 19 BP; 7 A; 0 C; 12 G; 0 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 19;
Best Local Similarity 82.4%; Pred. No. 5.9e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1787 CCATTCTTTCCTTCTCT 1803
|| | ||| ||||||||
Db 19 CCCTCCTTCCCTTCTCT 3

RESULT 5457
AAA84722
ID AAA84722 standard; DNA; 19 BP.
XX
AC AAA84722;
XX
DT 04-DEC-2000 (first entry)
XX
DE Cyclin E ribozyme binding site #255.
XX
KW Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
XX
OS Mammalia.
XX
PN WO200032765-A2.
XX
PD 08-JUN-2000.
XX
PF 06-DEC-1999; 99WO-US028772.
XX
PR 04-DEC-1998; 98US-0110954P.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Tritz R, Welch PJ, Barber JR, Robbins JM;
XX
DR WPI; 2000-412314/35.
XX
PT New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT PCNA and Cyclin B1.
XX
PS Disclosure; Page 81; 109pp; English.
XX
CC The present invention relates to a hairpin or hammerhead ribozyme,
CC designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC Representative examples of ribozyme recognition sites are given in
CC AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC inhibiting restenosis by introduction of the ribozyme into cells. The
CC ribozyme is resistant to endonuclease activity and hence is efficient in
CC restenosis treatment
XX
SQ Sequence 19 BP; 1 A; 7 C; 7 G; 4 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 19;
Best Local Similarity 82.4%; Pred. No. 5.9e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 500 GCGGGGCTGCCCTCGCA 516
||| |||| |||||||
Db 2 GCGTGGCTCTCCTCGCA 18

RESULT 5458
AAH59884
ID AAH59884 standard; DNA; 19 BP.
XX
AC AAH59884;
XX
DT 10-SEP-2001 (first entry)
XX
DE Cyclin E ribozyme binding site SEQ ID NO:2308.
XX
KW Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW sickle cell retinopathy; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200130362-A2.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US029500.
XX
PR 26-OCT-1999; 99US-0161532P.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Robbins JM, Tritz R;
XX
DR WPI; 2001-300427/31.
XX
PT Treating proliferative skin or eye diseases and scarring, using ribozymes
PT that cleave RNA encoding cytokines involved in inflammation, matrix
PT metalloproteinases, growth factors and cell-cycle dependent kinases.

```
  Query Match             0.4%;  Score 12.2;  DB 1;  Length 18;
  Best Local Similarity   82.4%;  Pred. No. 5.6e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| ||||| | |
Db         18 AAAAAAAAAAAAGGGGG 2


RESULT 5454
ABL95913/c
ID   ABL95913 standard; DNA; 18 BP.
XX
AC   ABL95913;
XX
DT   19-JUN-2002  (first entry)
XX
DE   Probe poly w for assaying nucleic acids.
XX
KW   Probe; polymorphism detection; mutation detection; disease diagnosis;
KW   microbial identification; ss.
XX
OS   Unidentified.
XX
PN   WO200208414-A1.
XX
PD   31-JAN-2002.
XX
PF   27-JUN-2001; 2001WO-IB001147.
XX
PR   27-JUN-2000; 2000JP-00193133.
PR   03-AUG-2000; 2000JP-00236115.
PR   26-SEP-2000; 2000JP-00292483.
XX
PA   (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY.
PA   (KANK-) KANKYO ENG CO LTD.
XX
PI   Kurane R,  Kanagawa T,  Kamagata Y,  Torimura M,  Kurata S,  Yamada K;
PI   Yokomaku T;
XX
DR   WPI; 2002-195876/25.
XX
PT   Fluorescently-labeled nucleic acid probes for assaying nucleic acids and
PT   their polymorphism and mutation, particularly useful in science and
PT   medicine for e.g. analytical applications, disease diagnosis and
PT   microbial identification.
XX
PS   Example 14; Page 64; 152pp; Japanese.
XX
CC   The present invention relates to nucleic acid probes, which are useful
CC   for assaying nucleic acids by hybridising with a target nucleic acid, in
CC   which a single-stranded oligonucleotide is labelled with a fluorescent
CC   substance and a quencher in a manner that the fluorescence intensity of
CC   the hybridisation reaction system is increased after completion of the
CC   hybridisation but no stem loop structure is formed. The probes are useful
CC   for assaying nucleic acids and their polymorphism and mutation,
CC   particularly useful for e.g. analytical applications, disease diagnosis
CC   and microbial identification. The present sequence was used to illustrate
CC   the invention
XX
SQ   Sequence 18 BP; 0 A; 6 C; 0 G; 12 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 18;
  Best Local Similarity   82.4%;  Pred. No. 5.6e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1979 AAAAAAAGAAAAGTGTG 1995
              ||||||| ||||| | |
Db         18 AAAAAAAAAAAAGGGGG 2


RESULT 5455
ABL44451/c
ID   ABL44451 standard; DNA; 18 BP.
XX
AC   ABL44451;
XX
DT   11-APR-2002  (first entry)
XX
DE   Human chromosome 1p36-35 PCR primer SEQ ID NO:1495.
XX
KW   Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
KW   PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2001321190-A.
XX
PD   20-NOV-2001.
XX
PF   12-MAR-2001; 2001JP-00068285.
XX
PR   10-MAR-2000; 2000JP-00066716.
XX
PA   (RIKA ) RIKAGAKU KENKYUSHO.
PA   (GENO-) GENOTEX YG.
XX
DR   WPI; 2002-144136/19.
XX
PT   Arraying genome clones.
XX
PS   Claim 4; Page 34; 528pp; Japanese.
XX
CC   The present invention describes a method of arraying genome clones. The
CC   method comprises: (a) clones of the genomic libraries contained in
CC   multiwell plates numbered for discrimination are mixed in each of the
CC   multiwell plates; (b) a primer designed based on the chromosome marker
CC   sequence is added to the mixture to carry out an amplification reaction;
CC   (c) a signal corresponding to the marker is detected from the resultant
CC   amplified product to specify the discrimination Nos. of the multiwell
CC   plates containing the clones having said marker sequence; (d) the order
CC   of the markers is changed so that the same discrimination Nos. succeed to
CC   the maximum in the specified discrimination Nos. to array the multiwell
CC   plates; (e) the clones in the multiwell plates of the specified
CC   discrimination Nos. are mixed respectively in each wells of longitudinal
CC   and lateral directions; (f) the mixed clones are cultured and the
CC   resultant cultures are amplified by using the above primer; (g) signals
CC   are detected from the amplified products; (h) the clones in the multiwell
CC   plates are specified from the detected result; and (i) the clones are
CC   reconstituted as the positions on the chromosome and arrayed. The
CC   microarray is useful for gene analysis. ABL42957 to ABL45322 represent
CC   PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634
CC   represent PCR primers for human chromosome 21q22.1, which are
CC   specifically claimed for use in the present invention
XX
SQ   Sequence 18 BP; 1 A; 8 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 18;
  Best Local Similarity   82.4%;  Pred. No. 5.6e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1546 GTAGGGAAGGAACAGGA 1562
              |||||| || | |||||
Db         17 GTAGGGCAGAAGCAGGA 1


RESULT 5456
AAV44620/c
ID   AAV44620 standard; DNA; 19 BP.
XX
AC   AAV44620;
XX
DT   24-NOV-1998  (first entry)
XX
DE   Human uncoupling protein-2 UCP2 gene primer hUCP2.CDSR1.
XX
```

PT Novel short interfering RNA and enzymatic nucleic acid useful for
PT treating cancer, modulates the expression of a nucleic acid encoding
PT HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS Claim 58; Page 124; 185pp; English.
XX
CC The invention relates to a novel short interfering RNA (siRNA) nucleic
CC acid molecule or an enzymatic nucleic acid molecule, that modulates
CC expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC rheumatic activity. The nucleic acid molecules are useful for reducing
CC HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC also useful for treating breast, ovarian, colorectal, lung, prostate,
CC bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC ribozymes of the invention
XX
SQ Sequence 17 BP; 1 A; 10 C; 2 G; 0 T; 4 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 17;
Best Local Similarity 82.4%; Pred. No. 5.3e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1544 GAGTAGGGAAGGAACAG 1560
|||| ||| |||| |||
Db 17 GAGTGGGGCAGGAGCAG 1

RESULT 5452
ABL57566/c
ID ABL57566 standard; DNA; 18 BP.
XX
AC ABL57566;
XX
DT 26-JUL-2002 (first entry)
XX
DE Synthetic deoxyribooligonucleotide poly w.
XX
KW Concentration; quantification; mutation detection; polymorphic;
KW polymerase chain reaction; PCR; ss.
XX
OS Synthetic.
XX
PN EP1046717-A2.
XX
PD 25-OCT-2000.
XX
PF 20-APR-2000; 2000EP-00108643.
XX
PR 20-APR-1999; 99JP-00111601.
XX
PA (NIBI-) JAPAN BIOINDUSTRY ASSOC.
PA (AGEN) AGENCY OF IND SCI & TECHNOLOGY.
PA (KANK-) KANKYO ENG CO LTD.
XX
PI Kurane R, Kanagawa T, Kamagata Y, Kurata S, Yamada K, Yokomaku T;
PI Koyama O, Furusho K;
XX
DR WPI; 2000-657765/64.
XX
PT Determining the concentration of a target nucleic acid, useful e.g. for
PT detecting genetic mutations, comprises using a fluorescently labeled
PT probe in which emission is reduced by binding to the target nucleic acid.
XX
PS Example 7; Page 24; 55pp; English.
XX
CC The invention relates to the determination of the concentration of a
CC nucleic acid target, using a fluorescently labeled probe which produces
CC reduced fluorescence emission when hybridised to the target nucleic acid.
CC The method comprises measuring the reduction in emission caused by
CC hybridisation. The new method is particularly used to quantify target
CC nucleic acids by a real-time polymerase chain reaction, e.g. for
CC quantifying microbial cells in co-cultures or symbiotic systems, for
CC detecting gene mutations or polymorphisms, and for analysing melting
CC curves of target nucleic acids to determine a Tm value. Methods of the
CC invention allow target nucleic acids to be quantified quickly, easily and
CC accurately. Particularly there is no need to remove unbound probe, and no
CC materials are introduced that inhibit amplification by Taq polymerase (so
CC conventional PCR conditions can be used). The specificity of PCR is kept
CC high (amplification of primer dimers is delayed), and the limit of
CC quantitation is reduced. Complex probes are not needed, and amplification
CC can be monitored in real time. The working graph for data analysis
CC (automatically generated by a computer) has a higher correlation
CC coefficient than conventional graphs so more accurate quantitation is
CC possible. The current sequence represents a synthetic
CC deoxyribooligonucleotide that was used for investigating the effects of
CC the kind of bases in each target nucleic acid, and the kind of bases in
CC its corresponding invention nucleic acid probe
XX
SQ Sequence 18 BP; 0 A; 6 C; 0 G; 12 T; 0 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 18;
Best Local Similarity 82.4%; Pred. No. 5.6e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1979 AAAAAAAGAAAAGTGTG 1995
||||||| ||||| | |
Db 18 AAAAAAAAAAAAGGGGG 2

RESULT 5453
ABA97651/c
ID ABA97651 standard; DNA; 18 BP.
XX
AC ABA97651;
XX
DT 11-APR-2002 (first entry)
XX
DE Poly w nucleotide sequence.
XX
KW ss; fluorochrome; nucleic acid probe; fluorescence.
XX
OS Unidentified.
XX
PN JP2001286300-A.
XX
PD 16-OCT-2001.
XX
PF 20-APR-2000; 2000JP-00120097.
XX
PR 20-APR-1999; 99JP-00111601.
PR 24-AUG-1999; 99JP-00236666.
PR 30-AUG-1999; 99JP-00242693.
PR 01-FEB-2000; 2000JP-00028896.
XX
PA (BIOI-) BIOINDUSTRY KYOKAI SH.
PA (KANK-) KANKYO ENG KK.
PA (KEIZ-) KEIZAI SANGYOSHO SANGYO GIJUTSU SOGO KEN.
XX
DR WPI; 2002-134193/18.
XX
PT Measurement of nucleic acids, using a nucleic acid probe and analysis of
PT the obtained data.
XX
PS Example 7; Page 19; 34pp; Japanese.
XX
CC This invention relates to a method for measuring nucleic acids using a
CC nucleic acid probe labelled with a fluorochrome. The nucleic acid probe
CC decreases the fluorescence of the fluorochrome when hybridised with a
CC target nucleic acid, the decrease in the fluorescence is measured. The
CC method can be used for measuring a target nucleic acid
XX
SQ Sequence 18 BP; 0 A; 6 C; 0 G; 12 T; 0 U; 0 Other;

```
CC   treat central nervous system (CNS) injury and cerebrovascular accident
CC   (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The present
CC   sequence is a hammerhead ribozyme of the invention
XX
SQ   Sequence 17 BP; 14 A; 0 C; 2 G; 0 T; 1 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 5.3e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||||| | || ||||
Db          1 AAAAAAAUAGAAGAAAA 17


RESULT 5450
ABK02172
ID   ABK02172 standard; RNA; 17 BP.
XX
AC   ABK02172;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO DNAzyme #84.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US004273.
XX
PR   11-FEB-2000; 2000US-0181797P.
PR   28-FEB-2000; 2000US-0185516P.
PR   06-MAR-2000; 2000US-0187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  Mcswiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT   central nervous system injury.
XX
PS   Claim 88; Page 114; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO). The
CC   nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC   an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC   with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC   of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC   Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC   the cell and treat a patient having a condition associated with the level
CC   of CD20. The treatment may further comprise the use of one or more
CC   therapies. In particular, the CD20 targetting nucleic acid may be used to
CC   treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC   Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC   leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC   lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC   immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC   targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC   presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC   nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC   cell and treat a patient having a condition associated with the level of
CC   NOGO. The treatment may further comprise the use of one or more
CC   therapies. In particular, the NOGO-targetting nucleic acid may be used to
CC   treat central nervous system (CNS) injury and cerebrovascular accident
CC   (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The present
CC   sequence is a DNAzyme molecule of the invention
XX
SQ   Sequence 17 BP; 14 A; 0 C; 2 G; 0 T; 1 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 5.3e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAAA 2802
              ||||||||| | || ||
Db          1 AAAAAAAAAUAGAAGAA 17


RESULT 5451
ABZ61926/c
ID   ABZ61926 standard; RNA; 17 BP.
XX
AC   ABZ61926;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human H-Ras DNAzyme target #717.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
```

DE Integrin subunit beta 3 substrate sequence SEQ ID NO:5819.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US006507.
XX
PR 27-MAR-1998; 98US-0079678P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, Mcswiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or stability
PT of an mRNA encoding an angiogenic factors.
XX
PS Claim 54; Page 230; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with RNA
CC cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3
XX
SQ Sequence 17 BP; 0 A; 3 C; 0 G; 0 T; 14 U; 0 Other;

Query Match 0.4%; Score 12.2; DB 1; Length 17;
Best Local Similarity 82.4%; Pred. No. 5.3e+03;
Matches 14; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 2786 AAAAAAAAAAAAAAAAA 2802
|||||| ||| |||||
Db 17 AAAAAAGGAAAGAAAAA 1

RESULT 5449
ABK00237
ID ABK00237 standard; RNA; 17 BP.
XX
AC ABK00237;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human NOGO Hammerhead Ribozyme #237.
XX
KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW inflammatory arthropathy; central nervous system injury;
KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW Parkinson's disease; ataxia; Huntington's disease;
KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200159103-A2.
XX
PD 16-AUG-2001.
XX
PF 09-FEB-2001; 2001WO-US004273.
XX
PR 11-FEB-2000; 2000US-0181797P.
PR 28-FEB-2000; 2000US-0185516P.
PR 06-MAR-2000; 2000US-0187128P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, Mcswiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and
PT central nervous system injury.
XX
PS Claim 88; Page 69; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO). The
CC nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN motif) pr
CC an amberzyme (cleaving RNA with an NGN triplet), a zinzyme (cleaving RNA
CC with a YGY motif). The CD20-targetting nucleic acid is used to cleave RNA
CC of CD20 in the presence of a divalent cation that is preferably Mg^2^+.
CC Furthermore, it may be contacted with a cell to reduce CD20 activity of
CC the cell and treat a patient having a condition associated with the level
CC of CD20. The treatment may further comprise the use of one or more
CC therapies. In particular, the CD20 targetting nucleic acid may be used to
CC treat lymphoma, leukaemia, B-cell lymphoma, low-grade or follicular non-
CC Hodgkin's lymphoma (NHL), bulky low-grade or follicular NHL, lymphocytic
CC leukaemia, HIV (human immunodeficiency virus) associated NHL, mantle-cell
CC lymphoma (MCL), immunocytoma (IMC), small B-cell lymphocytic lymphoma,
CC immune thrombocytopaenia, and inflammatory arthropathy. The NOGO-
CC targetting nucleic acid is used to cleave RNA of the NOGO gene in the
CC presence of a divalent cation that is preferably Mg^2^+. Furthermore, the
CC nucleic acid may be contacted with a cell to reduce NOGO activity of the
CC cell and treat a patient having a condition associated with the level of
CC NOGO. The treatment may further comprise the use of one or more
CC therapies. In particular, the NOGO-targetting nucleic acid may be used to

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CC   The present sequence is a PCR primer used to synthesise carrot CR16.1
CC   fragment. This fragment along with a 10 bp synthetic DNA is used in the
CC   construction of a plant promoter. The promoter is used for controlling
CC   the expression of a desired gene e.g. soybean glycinin, stearoyl-ACP-
CC   desaturase and S-locus type specific RNase gene (male sterility-related
CC   gene) in a host cell especially a microorganism or a plant cell. The
CC   transformed plant cells can be used to produce transgenic plants. The
CC   promoter is compact and therefore suitable for higher expression of a
CC   desired gene in a particular tissue compared to other host tissues
XX
SQ   Sequence 25 BP; 8 A; 9 C; 1 G; 7 T; 0 U; 0 Other;

  Query Match             0.4%;  Score 12.4;  DB 1;  Length 25;
  Best Local Similarity   72.7%;  Pred. No. 5.9e+03;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy       2484 AATGGTGATGGGGTAATCTATA 2505
              |||| ||| | | | ||||| |
Db         24 AATGTTGAGGTGTTGATCTAGA 3


RESULT 5446
AAF06381/c
ID   AAF06381 standard; DNA; 17 BP.
XX
AC   AAF06381;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3178.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US009721.
XX
PR   12-APR-1999;   99US-0129390P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  Mcswiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor protein,
PT   interferon alpha and erythropoietin.
XX
PS   Claim 42; Page 128; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription
CC   factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP).
CC   Inhibition of the repressors removes prevents inhibition (and
CC   consequently increases expression of) genes involved in the production of
CC   erythropoietin, granulocyte colony stimulating factor protein and
CC   interferon alpha
XX
SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 0 T; 14 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 5.3e+03;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2786 AAAAAAAAAAAAAAAA 2802
              | ||||  |||||||||
Db         17 ACAAAATTAAAAAAAAA 1


RESULT 5447
AAX69806
ID   AAX69806 standard; RNA; 17 BP.
XX
AC   AAX69806;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1101.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 80; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 3 A; 2 C; 0 G; 0 T; 12 U; 0 Other;

  Query Match             0.4%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   11.8%;  Pred. No. 5.3e+03;
  Matches    2;  Conservative   12;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2174 TTTTTTTTTTTTAACT 2190
              ::::::::::::  || :
Db          1 UUUUUUUUUUUCCAAAU 17


RESULT 5448
AAA22593/c
ID   AAA22593 standard; RNA; 17 BP.
XX
AC   AAA22593;
XX
DT   19-JUN-2000  (first entry)
XX
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